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VANCIL

Cases in ACCOUNTING POLICY

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ACCOUNTING
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Preface

This collection of cases is designed specifically for use with an accounting text at the intermediate or advanced level. Probably not more than half of the cases would be suitable for a first accounting course: except perhaps for one tailored specifically to the needs of non-accounting students, in which the importance of an understanding of the principles of accounting and the bookkeeping cycle might be less than that for students concentrating in accounting. Our primary concern in this book is with the needs of the student of accounting, often referred to as "the accounting major," a classification to which both of the authors, at one time or another, have belonged. In fact it is from our own experiences, first as accounting majors and later as accounting teachers, that we have formed the conviction that the prudent and competent use of cases can add a dimension of realism and vitality that is too often missing in accounting education.

Moreover, this is *not* a book in *management accounting* within the meaning of that term as generally used to refer to the collection, interpretation, and presentation of data for internal operating decisions in the business enterprise. In a broader sense, however, the decisions which have to be made in the cases in this book *are* management decisions. They deal with the vital management function of reporting to the owners, the financial community, regulatory agencies, and the general public on the results of the operations of the business enterprise. This function has become no less important during recent years, simply because the quantitative aspects of internal decision-making have begun to receive their due consideration.

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Except where specifically indicated, all the cases in this book were developed for use in courses at the Harvard Graduate Business School, and are copyrighted by the President and Fellows of Harvard College. Although over two-thirds of the cases are "field" cases—that is, they are based on field research within the actual companies involved—we can thank publicly only those companies which have elected to have their cases appear in undisguised form. These companies are: Textron, Inc.; Trans World Airlines; Jordan Marsh Company; The Reece Corporation; The Boston Patriots; and the *Harvard Law Review*. To list the remaining firms which cooperated in the writing of these cases would, of course, be inconsistent with their preference to remain anonymous; we are nonetheless grateful for their contributions.

Case collection is a slow and difficult process demanding the time and effort of many individuals. Robert H. Deming, Robert C. Hill, and L. Paul Berman, as staff members at the Harvard Business School, have had a large share in the writing of these cases. Professors Ross G. Walker, Robert N. Anthony, Charles A. Bliss, Walter Frese, and Russell H. Hassler have also contributed to this book. Three cases come from members of other institutions: Professor Wiley Mitchell of the University of Kansas, Professor DeWitt Dearborn of the Carnegie Institute of Technology, and Doctor Russell Bowers of DePaul University. Each has permitted us to use a case developed by him and copyrighted by his institution. Professor Earl D. Bennett, formerly of the Harvard Business School and now at the University of Texas, has permitted us to use two cases from his book *Cost Administration,* also published by Prentice-Hall. The best source of ideas for improving cases is actual experience with them in the classroom; our teaching colleagues, Professors Charles Christenson, John Dearden, Robert Jaedicke, and John Yeager, have contributed generously in this respect. And, as is always the case, enormous secretarial effort has gone into the production of a finished manuscript. We single out our secretaries, Miss Helen Kosakowski and Miss Mary Fustolo, to represent the considerable number who have contributed in this respect.

We express our appreciation to all these individuals without implying any responsibility on their part for the structure and quality of this book.

N.E.H.
R.F.V.

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Introduction

During the years 1955 to 1959, Trans World Airlines spent $17 million in "jet integration" costs—costs incurred in getting ready to fly jet aircraft. Pilots had to be trained or retrained; crews had to be familiarized with the unique problems of jet aircraft maintenance; new supporting equipment was needed; and advertising funds were required to acquaint the public with the new transport service represented by jet air travel. All these expenditures flowed naturally from the decision of TWA's management to make the transition from conventional propeller-driven aircraft to the high-speed transport planes of the jet age.

Following this sequence of decisions which, in their total effect, committed TWA's stockholders to an expenditure of $17 million, the Company's executives were faced with one more management decision: how the $17 million expenditure would be related to the airline's earnings as reported to stockholders. This latter decision was as truly a management decision as those which had caused the expenditures in the first place. We shall refer to such decisions as *accounting policy* decisions. In the TWA case, the decision either had to be made within the framework of an accounting policy already explicitly or implicitly established, or a new policy had to be especially formulated to deal with this apparently unique accounting problem.

Over what period of time should "jet integration" costs be amortized? It is difficult to argue, in principle, with the Civil Aeronautics Board's answer to this question (essentially, that costs should be matched against revenues). Stated in such general terms, however, both the question and the answer are purely academic; in any practical sense the question, as stated, is unanswerable. Perhaps it *should* be possible to invoke some "accepted accounting principle" so unequivocal in its formulation and so precise in its application that nothing would be left to the decisional whims of management—that as a matter of principle the answer would be inevitable. That such is not the case is apparent from the fact that among the major airlines, all of whom have faced this same problem, the amortization periods employed have ranged from two to ten years. All these treatments have been accepted by highly reputable firms of

Certified Public Accountants and all of them have met the requirements of the Civil Aeronautics Board. Management is neither protected nor hindered by a prescribed and uniformly accepted treatment. A management decision must be made; and for the case at hand it must be made, not in some theoretical, doctrinaire sense, but specifically for Trans World Airlines.

The problem just described is illustrative of the accounting policy questions included in this book. These cases present a wide range of situations which require a decision on the part of management—a decision that can be made rationally only within the framework of carefully determined accounting policies. And although the ultimate responsibility for such a decision rests with management, a primary role in the formulation of the underlying accounting policy is assumed by the company's chief accounting officer or by its independent public accountants. It is in this role as management's professional advisor on matters of accounting policy that perhaps most of the students using this book will wish to place themselves. The collection of cases has been planned especially with this audience in mind.

We believe, however, that whether the student sees himself as a potential advisor to management or, sooner or later, as an active participant in management, he should constantly try to identify himself with specific problems in their specific settings as he studies the cases. The case method of study, in addition to being an effective means of developing a real understanding of substantive knowledge and helping the student to cultivate his ability to develop and express his own original thoughts, is also a proven method of approximating, in the classroom, long and varied experience in the business world.

CASE PREPARATION AND CLASSROOM PARTICIPATION

A successful experience in case study requires a great amount of student effort. Case discussions are exciting and productive only if the members of the class are well prepared and individually willing to express and defend ideas which they think are worth while. The case method leans heavily on the individual. But we know from our own experience that the student welcomes the opportunity to become an *active* part of the process of education. He also responds to the idea that *his* thoughts are worth something, too. In the long run, of course, it is his thought and effort that will determine his success in the real world.

Although the student is properly on his own in the classroom, he should not necessarily restrict his prior study to individual effort. It is sometimes useful if the student, after becoming completely familiar with the case facts and arriving at his independent judgment as to the critical issues in the case, can then participate in a small (five-to-eight-student) group discussion for a few minutes, perhaps half an hour, before going to class. Such discussions should not try to treat the case in detail. Rather, they should permit each group member to get a quick group reaction to his approach and compare his approach to others. It may give him a better understanding of the strengths and weaknesses of his position. The brief group discussion can also frequently save the student from the embarrassment of suddenly realizing, in the presence of the entire class, that he has overlooked an important case fact that lays his whole approach open to question.

As valuable as the small group discussion can be, it should not be allowed to become a crutch for the individual. The group should not go into class with a "group decision"; in fact the small group will frequently not be able to reach a unanimous opinion. The student should contribute to, and take from, his group discussion the ideas which he thinks are good and then, when he enters the classroom, be himself and depend upon himself. He should be willing to present his ideas and defend them as long as he is convinced of their value; this he is usually anxious to do. Perhaps the sterner test comes in developing the ability to accept another's idea or plan when one recognizes it as being superior to his own, even when the student may feel a temporary "loss of face." To do this requires a high degree of emotional maturity and intellectual courage.

If the members of the class can, while pursuing their separate lines of thought, move toward a solution, or perhaps more than one, which the class generally accepts as being sound and reasonable, the sense of accomplishment will be great. This will also undoubtedly be the instructor's objective. He will often find it difficult to refrain from taking an active role in the discussion. The student is naturally anxious to know what the instructor thinks about the issue under discussion, perhaps because the student would like to know the "right" answer, but sometimes simply because he is anxious to know whether the instructor agrees with him. The student should be prepared to have the instructor enter into the discussion at his own discretion, for he will be concerned with the pedagogical aspects inherent in the use of cases. The line between facilitating learning and interfering with it is a delicate one. Guarding that line on the side of learning is the instructor's prerogative as well as his responsibility.

BEWARE THE "RIGHT" ANSWER

The student should not always expect to have *the* answer carefully tucked away in his notebook when he leaves the classroom. It is entirely possible for two equally competent students to arrive at quite different conclusions from the same set of "facts" in the same situation. A wide range of opinion may be defensible in both theory and practice. If this is true for students, it is of course also true for the instructor. The instructor will not always have *the* right answer. Usually, of course, he can be expected to have considered the question under discussion carefully enough to be aware of the reasonable alternatives and to have arrived at his own judgment as to the treatments that are preferable. But the class should not expect that the instructor's views will always be expressed at some time during the class.

We hope the preceding comments have not been interpreted to indicate that virtually *any* case solution is acceptable. Clearly, for a particular problem there may be many suggested treatments which will not stand up under careful examination. The class can be expected to dispose promptly of off-the-cuff recommendations framed from superficial study of the case. It is only after the patently unacceptable treatments have been eliminated and a list of practicable approaches has been developed, that the selection process becomes difficult and the opportunity for real learning great. Although the individual student may, at a reasonably early stage in the decision, make his own choice from among the treatments that are worth consideration, he has not taken full advantage of the learning opportunity until he *understands* why another member of the class has reached a different opinion.

CASE COVERAGE

In putting together this collection of cases, we have made an effort to cover a wide range of industries. In addition to many cases involving manufacturing and retail distribution, this book includes cases about the following kinds of companies: book and magazine publishers, a movie producer, a sugar plantation, an industrial park land developer, a commercial factoring house, a cemetery, a whiskey distiller, and a professional football team. The purpose behind this diversity is more than to provide the spice of variety: since the basic principles of accounting are applicable to all types of commercial enterprises, these cases offer an opportunity to apply familiar principles to situations which the student may not have thought about before in an accounting context. Textbook "solutions" are not available here, and the student will have to do some original thinking to develop a set of accounting policies really appropriate for such businesses.

We have also attempted, where pertinent, to include in the cases an explanation of the permissible income tax treatment of certain types of transactions. Income taxes have had an important effect (too important, we believe) on the selection of accounting policies for financial reporting purposes. In some of the cases in this book, the student will have an opportunity to evaluate this interrelationship for himself, and will be forced to resolve the question of producing for tax authorities "profit" figures that are different from those disseminated to other users of financial statements.

We believe that the study of these accounting policy matters within the natural context in which they arise will enable the student to develop his technical knowledge and skill into an effective part of the vital process of business management—as the accounting member of the management team or as a public accountant providing independent professional consultation.

PART I

Preparation and Analysis of Financial Statements

PREPARATION OF FINANCIAL STATEMENTS—REVIEW

CASE 1

Masters Fuel Oil Company

On the morning of January 14, 1959, Mr. Leonard Masters appeared at the office of his accountant, Wallace Stone. Masters was troubled, and explained his concern to Stone in the following words: "When you started handling my account last May, you said that my books seemed to be in pretty good shape. Since then we've been doing about the same volume of business as last year—maybe a little more, but not very much. I've been thinking about the informal reports you've been giving me on how we're doing, and from what you say it looks like we've doubled last year's profit. I can't see how that can be right. Don't you think we ought to check this out before you make up our 1958 reports?"

Mr. Masters, with his son-in-law, Louis Webster, operated Masters Fuel Oil Company. The principal activity of this company was delivery of heating fuel to residential customers; it had been registered as a partnership on July 1, 1956, after having been operated as a sole proprietorship by Leonard Masters for seventeen years. The company was operated from the Masters home. Mrs. Masters and her daughter kept the records of deliveries (sales), receipts, and disbursements; Mrs. Masters billed all customers monthly. In addition to these members of the family, the company had recently taken on one full-time and two part-time workers to handle residential service work and to operate the company's second truck, acquired December 1, 1958. Louis' younger brother was frequently paid out of petty cash for performing such tasks as washing the trucks or answering the telephone.

Prior to the formation of the partnership and the hiring of driver-servicemen, the needs of the firm for formal records and accounting information were limited largely to billing and tax requirements. The changes, however, brought about a need for determining the partners' share of profits and for reporting payroll information to state and federal offices. Louis Webster was also somewhat more businesslike than his father-in-law and pressed for more formal handling of the company's records. For these reasons, Masters and Webster decided that they would no longer depend on a "friend of the family" to figure their annual profit and income tax. Wallace Stone was contacted and was engaged to review the records of transactions monthly, to post to a set of accounts in a general ledger, to prepare quarterly statements and payroll reports, and to prepare the annual tax returns.

When Mr. Stone first visited the Masters home, he was given the income statement and balance sheet for the company's last full business year, which ended December 31, 1957 (see Exhibits 1 and 2). He discussed the operations of the firm at some length with the principals and was reasonably well satisfied that the affairs of the company were fairly presented in the statements.

On the basis of his initial interview, and his monthly visits, Stone observed the general manner in which the records were maintained. Briefly stated, his observations follow:

Cash Receipts: A record of all receipts, entered chronologically by the name of the payer, was maintained by Mrs. Masters.

Cash Disbursements: A record of all checks issued was maintained by Mrs. Webster. She reconciled the cash balance each month with the bank statement and noted any errors or discrepancies.

Cash Records: The receipts and disbursements journals (above) were completely transcribed, totaled, and balanced each month prior to Mr. Stone's visit.

Payroll Records: A record of hours worked by each employee was maintained by Louis Webster. This record was the basis for issuance of payroll checks and preparation of payroll reports.

Sales: Although customers were billed monthly on the basis of metered delivery tickets, no entry in the sales accounts was made to reflect either the delivery or the billing. Instead, all cash receipts were recorded as sales when Mrs. Masters entered them in the cash receipts journal. She also prepared a list of accounts receivable on December 31 of each year;

this list was used as the basis for year-end adjustment of the sales and receivables accounts.

Budget Accounts: Approximately half of the annual gallonage was sold to customers participating in the company's Budget Account Plan. Each of these customers made equal monthly payments for nine months of the year (September through May) and in June balanced the account. If the customer's account showed a credit balance in June, he could choose either to receive a refund check at that time, or to apply the credit against the next following payment.

Budget Plan customers paid neither a service charge nor a carrying charge. They were required, however, to purchase an annual service contract for which a $25 charge was the initial entry against their account. The contract covered cleaning and inspection of heating apparatus once during the year, usually in the July or August preceding the budget period, and expired each year at the end of the budget period. It also guaranteed free service and parts according to terms and conditions specified in the agreement.

Mr. Masters' experience proved that it was virtually impossible to tell when he would have to provide repair service. The dollar cost had not varied greatly, however, for several years. Cleaning service, on the other hand, was much simpler to plan for; it involved a fixed commitment which could be scheduled conveniently and discharged under predictable conditions of cost and time.

Mr. Masters was particularly enthusiastic about the cleaning portion of the service contracts. Except for incidental costs of replacing filters, labor time was his only real cost. Masters maintained that the cleaning work done under the Budget Plan Service Contract was at least as good as the work billed to noncontract customers. These customers were charged $15 for cleaning and inspection. Although relatively few noncontract accounts called for cleaning service, Masters denied that his rate was established to induce customers to enroll in the Budget Group. Competing firms offered similar cleaning services for $10 to $12.

The foregoing is a reasonably complete summation of Wallace Stone's knowledge of the Masters company up to the time of Mr. Masters' visit to his office. He did, of course, have a complete file of data on the 1958 operations (see Exhibit 3) and was about to prepare the annual statements for the partners. Now that Masters had questioned the profit figures, Stone felt obliged to take a little more time before releasing any statements.

Stone discussed the matter briefly with Masters and then agreed to meet with him and the other members of the family the following evening at Masters' home. At the meeting, attention soon centered on the marked difference in accounts receivable at the end of the two years in question. Mrs. Masters recalled, then, that there was some problem in setting up the balance of receivables at the end of last year. The friend who had been helping with the books had completed preparation of the tax returns before Mrs. Masters had totaled all the accounts. Explaining to Stone, Mrs. Masters said, "He had only the tape on the budget accounts.[1] When I called him and told him that I had the tape on all the other accounts, he said that he'd already finished the work and that it would all balance out." Mrs. Masters searched her desk and found the listing of accounts receivable that had not been recorded on December 31, 1957. The adding machine tape showed a total of $14,377.18.

Required

1. Using the data that Stone had prior to Masters' visit on January 14, prepare the income statement and balance sheet for Masters Fuel Oil Co.
2. How shall Mr. Stone explain the situation to the Masters and Websters? Will it "all balance out"? Why?
3. What accounts, if any, were misstated on December 31, 1957? on December 31, 1958?
4. What corrections, if any, would you make in the two sets of statements?
5. What are your recommendations for the handling of the record of customers' accounts in the future?
6. How should Stone reflect Masters' year-end liability on service contracts?

---

[1] Under the system used by this company, receipts on budget accounts had been recorded as budget plan income when received. The excess of delivery values over budget receipts had not been formally recorded. It was these amounts that Mrs. Masters calculated so that they could be added to budget plan income for the year.

EXHIBIT 1 Balance Sheet, December 31, 1957

ASSETS

Cash in bank			$13,993
Accounts receivable			12,486
Inventory of parts			5,490
Deposits on commercial bids			900
Total current assets			$32,869
Furniture and fixtures	$ 1,481		
Less: Depreciation allowance	566	$ 915	
Delivery and service equipment	$23,786		
Less: Depreciation allowance	9,787	13,999	
Building	$21,699		
Less: Depreciation allowance	7,364	14,335	
Land		6,000	
Total long life assets			35,249
TOTAL ASSETS			$68,118

LIABILITIES AND CAPITAL

Accounts payable		$ 4,382	
Other liabilities		256	
Total liabilities		$ 4,638	
Leonard Masters, Capital, January 1	$28,970		
Less: Drawings for the year	10,364		
	$18,606		
Add: Half share of profit for year	12,689		
Leonard Masters, Capital, December 31		$31,295	
Louis Webster, Capital, January 1	$29,860		
Less: Drawings for the year	10,365		
	$19,495		
Add: Half share of profit for year	12,690		
Louis Webster, Capital, December 31		32,185	
TOTAL LIABILITIES AND CAPITAL			$68,118

EXHIBIT 2

Income Statement for the Year Ended December 31, 1957

Income from Sales and Services:		
Fuel oil, nonbudget accounts		$ 97,587
Budget plan income		80,895
Burner service and repairs		14,876
Installations		10,980
Total Income		$204,338
Cost of Sales and Services:		
Fuel oil delivered	$143,367	
Burner parts and supplies	3,877	
Installation costs	5,219	
Subcontractor charges	1,472	
Total Cost of Sales		$153,935
GROSS PROFIT ON SALES		$ 50,403
Operating Expenses:		
Depreciation expense	$ 5,602	
Wages	6,751	
Vehicle expense	2,496	
Telephone	219	
Advertising	3,423	
Office and printing	1,019	
Utilities	437	
Taxes (other than payroll)	912	
Professional fees	1,480	
Payroll taxes	335	
Uniform rental expense	386	
Supplies	198	
Miscellaneous expense	1,766	
Total Operating Expense		$ 25,024
NET PROFIT FROM OPERATIONS		$ 25,379

EXHIBIT 3 Operating Data, 1958

Cash Receipts Journal:

Received from regular customers	$106,478	
Received from budget plan customers	97,798	
Received for burner service and repairs	12,714	
Received for installation work	4,460	
Received deposit refunds	750	
Total Receipts		$222,200

Cash Payments Journal:

Paid 1957 accounts payable	$ 4,382	
Withdrawn by L. Masters	12,650	
Withdrawn by L. Webster	15,000	
Paid for fuel purchases	146,260	
Paid for burner parts	5,905	
Paid for installations	2,111	
Paid to subcontractors	314	
Paid for utilities	424	
Paid for supplies	277	
Paid for new truck	12,133	
Paid for telephone	231	
Paid for advertising	2,627	
Paid property taxes	972	
Paid office and printing costs	1,119	
Paid fees for professional services	1,520	
Paid 1957 other liabilities	256	
Paid payroll taxes (1958)	212	
Paid for rental of uniforms	512	
Paid for vehicle operation	2,312	
Paid wages*	9,816	
Paid miscellaneous expenses	1,949	
Total Disbursements		$220,982

Additional Information:

Accounts Payable, 12/31/58	
For fuel oil purchases	$ 3,962
For utility bills	36
For burner parts	438
For advertising	159
Other Liabilities, 12/31/58	
Employers payroll taxes unpaid	278
Accounts Receivable, 12/31/58	
Regular accounts	$18,640
Budget accounts	12,172

Depreciation for 1958.

Furniture and fixtures—straight-line at 10% of asset cost.
Delivery and service equipment—straight-line at 20% of asset cost.
Building--Straight-line at 5% of asset cost.

Inventory of burner parts, 12/31/58	$ 8,250

*Witholding taxes not to be considered.

CASE 2

Angus Cleaners

During November 1952, Mr. Roy Angus left his job as a spotter[1] in a dry-cleaning plant and set about the task of establishing a dry-cleaning business of his own. Mr. Angus had accumulated approximately $9,000 in his savings account by virtue of the settlement of his father's estate and by saving a portion of his own weekly wage for several years. Anticipating the forthcoming need for business expenditures, Mr. Angus withdrew $8,000 from his savings account and deposited the money in a special checking account to be used for business purposes.

Mr. Angus had already selected a business site in a rapidly growing suburban shopping area. The premises provided ample space to conduct both the dry-cleaning operations and certain retailing functions. In his arrangements with the lessor, Mr. Angus agreed to a rent of $125 per month payable on or before the first of the month to which the rental would apply. The lease agreement was in the form of a one-year lease with an option to renew indefinitely. In closing the arrangement on December 12, Mr. Angus paid $250 rent in cash for the months of January and February, 1953. He anticipated operations would commence in January, 1953.[2]

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[1] A job involving the removal of spots from clothing.

[2] The lessor agreed to give Mr. Angus access to the premises rent-free before January 1, 1953.

Late in December 1952, Mr. Angus purchased equipment for the dry-cleaning operations and furniture and fixtures at a cost of $9,780.[3] To conserve funds, Mr. Angus made a down payment of $4,280 to the wholesaler who furnished both the equipment and furniture and fixtures and signed a noninterest-bearing note for the balance of $5,500. The note called for equal monthly payments of $275 to be made over a 20-month period. The first installment on the note was to be paid prior to January 31, 1953, and subsequent payments were to be made before the end of ensuing months. All this equipment was ready for use when the business opened. The wholesaler stated that the equipment and the furniture and fixtures were ordinarily replaced after 15 years and had no salvage value.

In the latter part of December, Mr. Angus purchased 24 plastic garment bags to be resold to customers who wanted a moth-and-dirt-free storage container. These garment bags were purchased for cash by Mr. Angus for the retail list price of $90 (retail list price per bag was $3.75) less a trade discount of 33⅓ per cent. In addition to the garment bags, Mr. Angus purchased, on account, supplies costing $34.[4] Mr. Angus checked the balance in the company checking account and found that it was $3,410 on December 31, 1952.

Opening day, January 2, was a busy one for Mr. Angus. He arranged for taking in clothes to be dry-cleaned, and he assigned his help, whom he had arranged for in December, to their respective jobs.

In January, Mr. Angus received bills for the freight ($147) and installation ($603) of the dry-cleaning equipment he had bought in December. Mr. Angus promptly paid in cash the $750 total of these bills.

Because of the large amount of work taken in during January, Mr. Angus believed his business was successful enough to warrant making some additional expenditures. First, in order to increase his sales further, and to offer his customers additional service, Mr. Angus purchased a used delivery truck at the beginning of February. This truck, already three years old, was purchased by Mr. Angus for $1,400, of which $800 was paid in cash, and a $600, 6 per cent per annum interest-bearing note, due August 1, 1953, was given for the balance. Mr. Angus asked the former owner about his method of depreciation. The former owner stated that his depreciation was based on an estimated five-year useful life for the truck. The truck had originally been purchased for $3,100, and a depreciation allowance of $1,860 had been accumulated for the three-year period it was owned. Mr. Angus figured the truck would have four additional years of useful life and a salvage value of $200 at the end of that period.

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[3] Equipment included dry-cleaning machines, presses, boiler, spotting board, irons, wet-cleaning equipment, tables, tubs, and bleach jars. The furniture and fixtures included storage racks, a sales counter, and signs.

[4] Supplies include solvent, soaps, bags, hangers, spotting and marking supplies.

The second large expenditure Mr. Angus made was for the installation of a partition between the front sales office and the dry-cleaning plant in the back. This partition, which was to include storage closets, was to replace a curtain which had been in use from the time the business opened. During February, this partition was constructed at a cost of $330, which Mr. Angus paid in cash. Mr. Angus worked out an agreement with his landlord whereby Mr. Angus was to receive the use of the premises rent-free for March and April in return for incurring the cost of the partition. Under the terms of the lease agreement, the partition became the property of the landlord.

On April 1, Mr. Angus took out a three-year fire and theft insurance policy. The total cost of the three-year policy was $240, which was paid in cash.

At the end of June, Mr. Angus was anxious to find out how his business had fared over the first six months of operation and to determine his present financial position. From his records of cash and charge sales for the first six months, he derived the following information:

Total *cash* dry-cleaning sales	$ 9,460
Total *cash* garment bag sales (84 bags at $3.75/bag)	315
Total dry-cleaning *charge* sales collected [5]	3,175
Total dry-cleaning *charge* sales outstanding June 30/53	453
	$13,403

Included in the cash dry-cleaning sales were receipts for work done on clothes which were later returned because they were physically damaged. Mr. Angus was successful in all instances in getting customers to accept the value of their claims in the form of credit which they could apply against their subsequent dry-cleaning bills. The total amount of credit extended for these claims was $55. On June 30, the amount of credit on claims given to customers that had been taken advantage of by the customers was $48. When the credit allowed customers on claims was used by the customers for subsequent dry-cleaning services, the amount of the credit used was not considered as a sale by Mr. Angus and therefore was not included in the sales figures given above. In addition, customers returned clothes for which they paid $30 to have dry cleaned, and Mr. Angus recleaned these clothes without charge.

From the stubs in his checkbook and from a file of bills paid out of the cash drawer, Mr. Angus listed as follows all the *cash* expenditures made between January 1 and June 30, 1953, with the exception of the cash expenditures mentioned previously for: freight and installation of equipment; truck; partition; and fire and theft insurance:

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[5] These are not included as part of cash sales.

Accounts payable outstanding January 1	$ 34
Payments to employees (does not include drawings by Mr. Angus)	5,312
Heat, light, and power	610
Advertising	182
Gas and oil for truck	212
Rent (for May, June, and July)	375
Payments on equipment	1,650
Supplies (soap, solvents, etc.)	1,806
Garment bags ($3.75 list price less 33⅓% discount)	250
Miscellaneous, general, and administrative expense	68
Premiums on Mr. Angus' personal automobile insurance (the automobile was not used in the business)	140
Mr. Angus' drawings	1,500
	$12,139

The cash expenditures for rent mentioned above included the rental fee for July, which was paid on June 29. Mr. Angus also noted that another $86 of labor expense had been incurred but was unpaid as of the end of June. His June heat, light, and power bills amounting to $115 had not been paid at the end of the month.

The only other unpaid bill on June 30 was for supplies; it amounted to $163. Mr. Angus took an inventory of supplies on hand and calculated their original cost as $94.

Thirty-eight garment bags were on hand June 30 which had cost Mr. Angus the retail list price of $142.50 less a trade discount of 33⅓ per cent. Mr. Angus had taken two garment bags home for his own use during May. These bags cost Mr. Angus $2.50 each and had a retail price of $3.75 each.

Included in the charge sales outstanding at the end of June was a $12 unpaid account of a customer who had moved out of town; Mr. Angus believed he would never receive payment. He estimated that an additional $5 of the $453 of accounts receivable outstanding on June 30 would probably be uncollectible. Mr. Angus felt that the amount of uncollectible accounts in the following six months would be the same as in the past six months.

Required

1. Prepare a balance sheet as of January 1, 1953, an income statement for the six months' period ending June 30, 1953, and a balance sheet as of June 30, 1953.

CASE **3**

Oliver Optics Company

When John Oliver graduated from technical school, he immediately started a small business making special lenses and certain high-quality optical items for the scientific and military demand. At the time, there was keen demand for a high-quality product, and Oliver thought he could build a substantial business by stressing this quality element. After a year of some very disturbing and revealing difficulties in meeting customers' high standards, Oliver thought he had things going well. By working hard and personally satisfying all complaints, he knew he had created much goodwill for his firm.

Oliver had started his business with $5,000 of savings, including some money he had inherited. At the end of the third month, he borrowed $2,000 on a one-year note, 4 per cent, from his uncle, who had intimated he would renew the note every year as long as Oliver needed the money. He had had large bills for materials, but had been able to keep from falling too far behind in his payments. Except for the accounts indicated below as unpaid, all bills had been paid in cash.

Mr. Oliver purchased some standard equipment at the first of the year "on time," agreeing to make a partial payment of $1,000 and to pay $250 every three months for four years. Since the payments were scheduled to start at once and since he had agreed to pay $60 interest every six months in advance, his initial payment was $1,310. A year having passed, the fifth payment of $250 would now have to be met, plus $60 interest.

When the equipment was bought, the company insisted on Oliver's taking out four years' insurance, which cost a total of $200. The equipment presumably would be useful for at least 10 years, though Oliver contemplated that if all went according to his plans, he would have to get rid of the equipment in five years and buy some with a greater operating capacity.

By the end of the first year, Oliver had three people working for him. One was a young lady who took care of his office work and spent about one-third of her time packing the delicate products as they were completed in the shop. The other two workers, hired at about the third month, spent all their time in the shop. About 20 per cent of Mr. Oliver's time was spent in office work and on selling trips, but the rest of the time he was to be found in the shop working with the other men.

At the end of the year, Oliver's records included the following:

Salaries paid (through December 31)	
Miss Schultz	$ 1,200
John Bardell	3,200
Peter Nutchell	3,500
John Oliver	6,000
Rent	2,000
Unpaid bills from suppliers *	5,130
Paid bills from suppliers	12,120
Uncollected accounts	
U. S. Government	5,150
Universities Scientific Supply Company	4,130
Payment due Oliver for subcontract work, completed, and shipped, December 17—Pegasus Aircraft Company	970
Spent on office supplies	250
Inventory on hand, at estimated cost	
Raw materials and supplies	830
Goods in process	1,270
Finished goods	1,100
Office supplies	50
Various administrative and selling expenses (including travel and advertising)	2,730
Electricity, etc.	430
Cash on hand **	730

Most of Oliver's sales were to two buyers, the U. S. Government and the Universities Scientific Supply Company. Oliver had sold some $310 worth of goods to one buyer earlier in the year when business was slow, and when the man became bankrupt with no assets whatever and without having paid his bill, Oliver promised himself, "Never again." Other firms, he was told, protected themselves against such losses by use of a charge of 1 per cent of year-end accounts receivable as an allowance for bad debts.

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* Does not include the balance due for the equipment referred to in the third paragraph of the case.

** Does not include a check for $2,030 from Universities Scientific Supply Company, believed to be in the mail as their regular settlement of accounts as of the close of the previous month. Charges for the last month were $2,100 additional.

In October, the Pegasus Aircraft Company had asked Oliver to do some work for them, altering special equipment which they sent on to Oliver's shop. The first lot had been completed before the year's end, but the payment for the work, $970, had not been received. A second shipment, apparently valued at $3,000, had just come in (afternoon of December 31) from the Pegasus plant, but the alteration work (which would come to about $1,000) had not yet been started. Mr. Oliver ascertained that the value of this incoming material, $3,000, had not been included in the totals for inventory listed above.

Approximately $800 of the finished goods inventory consisted of 200 special items that had been made for a government order, but had not as yet been shipped. Frankly, Mr. Oliver had wanted the situation to settle a little before making delivery, for a previous shipment of the same size (one-half the original order) had not met the specifications of the government inspectors, and Oliver had been notified that 20 per cent of the shipment was being returned as unsatisfactory. Fortunately, the items carried a 30 per cent markup over Oliver's cost, so he would not fare too badly. Still, Oliver was disturbed about the matter because he thought his inspection standards, when the first batch had been made, had been no different from those in force at any other time, and besides, he was advertising high-quality products. He certainly had no idea as to why the 20 per cent had been rejected. He intended to file an appeal to try to collect the full amount that he had billed the government (included in the $5,150 in the year-end listing given above), particularly since the rejected items could not be reworked and were not worth much to any other possible buyer.

Required

1. Work out Mr. Oliver's operating statement for the year and his ending balance sheet. You should show clearly how any figure not taken directly from the text has been determined. (The figure on sales has been omitted deliberately for the purposes of this problem, and must be found indirectly from the relationships of the accounts.)

CASE 4

Foley Circle Garage

In the fall of 1954, John Flynn and George O'Brien purchased the Foley Circle Garage from L. K. Johnson, its former owner, and proceeded to operate it. The following facts concern the purchase of the property and the operation of the business for the six-month period, September 1, 1954, to March 1, 1955.

The two partners paid $90,000 for the business, $65,000 of which was obtained on a 4 per cent mortgage note from the local bank to be amortized by annual payments over 10 years. Each partner put in $20,000, Mr. Flynn getting a loan of that sum from a relative at a nominal interest rate of 2 per cent and Mr. O'Brien borrowing $10,000 from his bank at 4 per cent on a personal note and selling $10,000 worth of 3 per cent bonds which he had inherited from a recently deceased uncle. Thus the balance of $25,000 on the purchase price was paid, and $15,000 was made available for current cash needs.

The balance sheet for the garage as worked out by the former owner at the time of the sale was as shown in Exhibit 1.

Under the terms of the purchase, the former owner, Mr. Johnson, agreed to settle all liabilities of the company and to turn over all assets other than cash and accounts receivable to the new partners. They expected to take over the former owner's dealership of a popular low-priced car, which if granted to them by the manufacturer (note: it was) would be worth, in their words, "at least $25,000 a year." The garage alone, valued at $50,000 (after depreciation) on the former owner's books, was expected to last 20 more years—at least so an experienced appraiser told the partners when they were considering the purchase. Mr. Johnson, the former owner, told them that according to his books there would be only 10 more years of depreciation charges of $5,000 a year. The equipment (net, $15,000) was, on the average, one-half depreciated, and the appraiser thought a five-year remaining life appropriate.

At the end of the six months' operation, the new partners had the following records:

Sales	
Gasoline, oil, etc.	$ 23,150
Repairs, parts, etc.	41,000
New cars (cost $58,000)	74,300
Used cars (trade-in value $18,400) *	21,200
	$159,650
Costs	
Gasoline, parts, and supplies (total to date)	$ 21,450
Interest (paid through 2/28/55)	1,300
Wages, salaries, and commissions (including $19,000 selling and administration)	40,100
Insurance (a three-year policy purchased September 1)	600
Advertising	1,500
Miscellaneous payments (cash)	2,140
	$ 67,090
Accounts payable, gasoline, and supplies	$ 950
Gasoline, parts, and supplies on hand	2,300
New cars on hand	8,100
Used cars on hand	11,900
New equipment (10-year expected life, bought January 1)	12,000
Cash on hand, February 28	6,080

At the end of the six-month period (February 28), there were mechanics' wages accrued and unpaid of $400. In addition, there was a memorandum that $200 included in the wages and salaries item of $42,100 had been an advance to one of the salesmen whose wife had been rushed to the hospital for an emergency operation.

As of February 28, accounts receivable were $1,750 for everything but car sales, and the partners thought a bad debt reserve equal to 4 per cent of outstanding receivables was about right.

Customer accounts for car purchases were not large because most customer financing, where necessary, was handled by banks and finance agencies. The partners had made some loans, however, and as of the end of February the amount outstanding was $6,500. Interest totaling

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* At the time of the turn-in of the used cars, the Foley Garage had allowed $18,400 on the purchase of new cars.

$220 had been collected on these notes, but $700 principal plus $75 interest was in arrears and unpaid (as of February 28).

The partners had been careful but liberal in offering trade-ins on sales of new cars. Nonetheless, they were afraid that in view of certain adverse circumstances there probably was a 10 per cent overage (that is, $1,190) in the figure for used car inventory at the end of the period, and they wanted the accounts adjusted. The records showed that $300 worth of parts and $200 of labor had been spent fixing up the used cars now in stock, and $400 more of parts and $700 of labor in fixing up cars that had been sold.

Required

1. Work out beginning and closing balance sheets and an operating statement for the intervening six-month period.

EXHIBIT 1 Balance Sheet, August 31, 1954

Assets	
Current assets:	
Cash	$ 4,900
Accounts receivable	7,100
Inventory of supplies, gasoline, etc.	3,600
New cars, at cost	13,100
Used cars, at trade-in value	900
Total	$29,600
Fixed assets	
Garage and equipment (after depreciation)	65,000
	$94,600

Liabilities and Proprietorship	
Current liabilities:	
Accounts payable	$ 8,300
Accruals	470
Total	$ 8,770
Other liabilities	
Mortgage	24,400
L. K. Johnson, owner	61,430
	$94,600

CASE 5

Morehouse Container Company

Arthur L. Morehouse was the operator of a moderately successful box and crate manufacturing company. The business had been started in 1947 when Morehouse, unemployed, applied for a job at a local aircraft plant. Unable to secure employment, Morehouse left the plant and took a short cut home through the company dump. As he was walking, Morehouse noticed that a truck crew was dumping and piling a load of damaged, but obviously repairable, wooden crates. On inquiring, Morehouse was told that the crates would, as usual, be burned.

By the time he reached home, Morehouse had decided that the crates stacked up in the dump could be turned into a profit. In rapid order, he obtained permission from the aircraft company to remove (free of charge) all damaged crates from the dump, to repair and recondition the crates, and to resell them (at negotiated prices) to the company.[1]

On the strength of the verbal commitments from the purchasing agent of the aircraft firm, Morehouse withdrew $350 from his fast-dwindling savings account and purchased a used truck. On the advice of a friend, he purchased a parcel of land about a mile from the aircraft plant. The land, which was acquired for $915 in back taxes, was occupied by a weather-beaten, barn-type structure which, although it had no apparent market value, was suitable for a shop or garage operation. Thus, although Arthur Morehouse was unable to secure employment with the aircraft manufacturer, his visit to that firm led to the establishment of the Morehouse Container Company.

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[1] Morehouse had to agree to continue to cart away all crates that were taken to the dump; failure to satisfy this requirement would cause him to lose his privilege.

By the end of 1957 the container company had grown in size, and was considered to be one of the outstanding examples of personal success in the community. The Morehouse company employed fourteen full-time and four part-time workers; it manufactured crates, packing boxes, structural forms, and many types of wooden shipping containers; and it supplied the needs of a large number of firms in the local area. Although the aircraft manufacturer was still Morehouse's primary customer, the "dump-clearing" arrangement had, by 1957, long since been terminated. Morehouse's lumber needs had grown to the point where it was necessary for him to purchase board lumber directly through agents dealing in New England and Canadian timber.

Early in 1958, Morehouse was considering several opportunities for expanding his business. He felt that bank-borrowing was generally better suited for his purposes than attempting to secure additional invested capital involving admission of a partner into the business; accordingly he contacted John Thurman, loan officer at his business bank, for information. At Thurman's request, Morehouse forwarded his tabulation of income and expense for 1957 and his balance sheet for the end of that year (see Exhibits 1 and 2 for these statements as they were prepared by Morehouse).

Within a few days, Thurman called and suggested that he and Morehouse meet to discuss matters in more detail. At the bank the next day, Thurman explained that his primary purpose was to make sure that the loan committee received the most useful information that was available.

The two men spent several hours discussing the operation of the business and the methods by which Morehouse kept his records; Thurman expressed satisfaction with the meeting and, after securing from Morehouse a folder of papers which contained information in support of the statements, promised that he would contact Morehouse shortly. On the basis of the statements, the papers in the folder, and his meeting with Morehouse, John Thurman accumulated the information that follows:

Land and Buildings: As was previously mentioned, the land and original buildings were acquired in 1947 for payment of back property taxes. Arthur Morehouse was well aware that his payment was an extremely poor reflection of the real value of the property. For that reason, he had carried the property on his records, from the time that he acquired it, at a conservative appraised value. In 1950, to reflect a general increase in property values in the vicinity, Morehouse decided to adjust his books. He discussed the value of the property with a local realtor, and then revised his balance sheet to show the property valued at $12,000.

In 1951, Morehouse received a bid of $4,800 for construction of a row of concrete sheds in which to store lumber so that it would be protected from the weather. Prior to approving a contract for the work, he was able to acquire a substantial portion of the necessary materials at extraordinary savings. As a result of his acquisition of building materials that cost him $950, Morehouse secured a reduction of the bid amount to $2,800. He nevertheless carried the improvement in his records at the original bid figure. Unquestionably, he maintained, the lesser total cost [2] did not fairly reflect the real value of the addition under normal conditions.

Factory Equipment: The principal pieces of equipment in the factory were the power saw and the nailing machine. Both pieces of equipment were purchased new in 1949, and had an expected useful life of 15 years. (Morehouse traded in some useless pieces of machinery when he purchased the two new units. The pieces traded in were found in the building when he took possession, were valued at $600 for trade-in credit, and resulted in a net cash outlay of $8,360 at the time of purchase. Morehouse figured that the machinery which he traded in would have been worth about $250 if he had tried to sell it.)

Morehouse considered such things as small hand tools to be temporary in nature and, thus, an immediate item of expense. He estimated that he had $350 worth of small hand tools in the shop at the end of 1957; all had been bought before 1957.

Delivery Equipment: In addition to the truck that he purchased in 1947, Morehouse operated another vehicle that he purchased new in 1954. The old truck had, of course, been fully depreciated and no longer showed in the records. In March, Morehouse paid $2,680 to have the old truck completely reconditioned. The cost of reconditioning was included in the amount that Morehouse figured for delivery expense for 1957. In Morehouse's estimation, the reconditioning work was the sole factor that would make it possible for him to use the truck for another three or four years.

Bad Debts: The debt loss experience of the company had been next to nothing for several years. Morehouse understood, however, that the tax law allowed him a bad debt deduction each year and, accordingly, he charged a flat $125 annually as expense. In 1957 his only loss was $66; this amount was due from a small local concern that was legally adjudged bankrupt. As the $125 deduction was the greater amount, Morehouse had charged this as an expense. Consequently, he had not removed the $66 from his accounts receivable.

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[2] The total cost to Morehouse was $3,750; that is, the bid amount of $2,800 was paid to the contractor; in addition, Morehouse provided the materials worth $950.

Depreciation: Morehouse figured depreciation on his property at the following rates:

	Years
Land and buildings	30
Machinery and equipment	10
Trucks	5

The year of acquisition was treated as a full year in computing depreciation expense.

Other Information: The inventory figure for December 31, 1957, included $1,980 which was the agreed purchase price, plus freight, of an order of Canadian pine due for delivery in early January. Morehouse usually received notice approximately a week before the shipment would reach his yard; he would take title on delivery and would pay the shipper at that time.

In addition to selling boxes and crates outright, Morehouse had developed a sideline in a box-rental service. Although the gains from his rental service were not significant, Morehouse was interested in the possibility of further developing that type of business. Essentially, Morehouse constructed a packing or storage box in one standard size at a cost of approximately $15.40. Then, he rented the boxes to local moving and storage companies at a charge of one dollar a month plus an initial five-dollar deposit. At the end of 1957, there were about 300 of the boxes out in use and 100 in the storage sheds. As best he could tell, Morehouse figured that the boxes would last anywhere from one to five years, depending upon the type of use to which they were put. As a rule of thumb, he allowed an average of two years as the normal life of a rental packing box. Experience indicated, also, that about 20 per cent of the boxes that were rented out were never returned. Normally, Morehouse would receive rental on these boxes for a year, more or less, and then the user would discontinue making rental payments. (Very rarely did any of these users request that their deposits be returned.) Whenever a box was returned (regardless of condition), Morehouse was obliged to return the deposit. Morehouse made no distinction between the rental receipts and the deposits, but rather took both into income as they were received.

Required

1. As analyst for the bank's loan officer, prepare an income statement for 1957, and a year-end balance sheet. Prepare these statements in a form that you feel will be helpful to the bank's loan committee in evaluating the financial position of the Morehouse Container Company. If you find it necessary to choose between different methods of handling various items, briefly explain your choice. [*Note:* Because of the complications involved in the calculation of individuals' income taxes, you may ignore all tax considerations.]

EXHIBIT 1 Record of Income and Expenses

1957

Income:		
Sales of boxes, crates, etc.		$137,910
Sale of lumber scraps		480
Rental of packing boxes		3,260
Deposits on packing boxes		850
Miscellaneous income		116
		$142,616
Expenses:		
Wages to employees		$ 52,680
Wages to Arthur Morehouse		10,200
Supplies used		3,880
Truck repairs—regular		320
Machinery repairs		620
Loss from bad accounts		125
Delivery expense		11,095
Depreciation expense		3,896
Utilities and operating		1,736
Real estate and property taxes		768
Installment on truck note (1957 installment)		900
		$ 86,220
Use of Inventory:		
Last year's inventory	$ 9,876	
Purchase payments in 1957	31,420	
	$41,296	
This year's inventory	6,640	$ 34,656
Total costs		$120,876
Profit		$ 21,740

Note: In addition to his wages, Morehouse drew a total of $8,400 in 1957 against profits.

EXHIBIT 2 Balance Sheet, December 31, 1957

Assets		Liabilities	
Cash in checking account	$11,383	Owed to suppliers	$ 846
Petty cash at office	162	Wages not picked up	22
Accounts receivable—good	8,740	Note on truck (due in 1958)	900
Accounts receivable—disputed*	482	Charged off for bad accounts to date	500
Accounts receivable—bad†	66	Total	$ 2,268
Lumber inventory	6,640		
Miscellaneous supplies	320		
Boxes on consignment‡	1,296		
Inventory of rental boxes	1,540		
Total	$30,629		
Machinery	8,960	Depreciation—Machinery	$ 8,064
Truck	12,200	Depreciation—Truck	9,760
Land and building	12,000	Depreciation—Land and building	4,400
Storage sheds	4,800	Depreciation—storage sheds	1,120
Total	$68,589		
		Total	$25,612

Owner's Interest

Total assets	$68,589
Total liabilities and depreciation	25,612
Difference, being owner's net interest at 12/31/1957	$42,977

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*Amount in dispute on a September 1956 shipment to aircraft plant. Morehouse cannot locate receipted delivery ticket, and customer has no record of receiving the shipment. No word on the matter in last six months; last word was that payment could not be made without proof of delivery.

†Due from firm declared bankrupt on May 16, 1957.

‡A local lumber supply house carried six dozen packing boxes on a "subject to sale" (or consignment) basis. They pay for boxes only as boxes are sold and retain a 10 per cent commission for their services. The boxes were similar to rental boxes, cost about the same to manufacture, and were priced to sell for $20.

CASE 6

H. William Kraft

On April 27, 1958, Mr. H. William Kraft became the owner of business property in Moundsville and Herculaneum, Vermont, that had been bequeathed to him by a lifelong friend and business associate. Kraft, 68 years old and the operator of a highly successful lumber and building supply firm in near-by Perryville, viewed the real estate operation with mixed feelings. On the one hand, his supply business required his full attention, and he could not afford to spend very much time on other matters; on the other hand, Kraft understood that the properties had been moderately profitable in the past, and he wished to take full advantage of the income that they could produce (see Exhibit 1 for description of properties, tenants, and conditions of tenancy).

Kraft received the properties subject to all rights and claims that attached to them or to his deceased friend's business as owner and operator of the properties. The terms of the will made this quite clear. He was required to accept responsibility for all liens against the properties; he also had a right to all benefits that accrued to the properties in any way. Since the estate taxes had been paid out of the general assets of the estate, Kraft was advised that he should not expect any assessment for estate taxes. This was in accordance with his friend's wishes.

Partly because he did not wish to become involved in the details of rent collection and partly because he wanted to give one of his younger employees a chance to broaden his experience, Kraft assigned William Roland to the job of managing the properties. Roland was an assistant to the bookkeeper of Kraft's lumber firm, and had impressed Kraft and other members of the firm as being diligent and intelligent. Roland was told that his "primary job on the rental property will be to keep a record of the rent checks as they come in" and to keep Mr. Kraft informed of any major developments.

As it turned out, the rental property required much more from Roland than the processing of monthly rent checks. Roland, a $60-a-week clerk, soon became the manager of a small but time-consuming rental business that demanded most, if not all, of his working time. In addition to matters of such routine nature as receiving and processing rent checks, many other tasks confronted him daily. Tenant complaints, building repairs, payment of bills, visits to the property, and a variety of small matters that the tenants wished to discuss with him consumed virtually all his time. Roland learned that the former owner had operated his properties on a very friendly, family-like basis; and Roland, largely because the tenants were accustomed to personalized treatment, found it very difficult to reduce the amount of time that he was spending in Moundsville and Herculaneum.

At the end of 1958, Mr. Kraft felt that it would be well to draw together the results of the year's operations. (By December 31, he had hired another assistant bookkeeper for the lumber business and, starting September 1, had raised Roland's pay to $75 a week.) Roland collected all the information that he had on the properties, and then Mr. Kraft instructed him to put together an income statement and balance sheet. The following is a summary of the data that William Roland had to work from:

Value of the Property: For estate tax purposes, the Moundsville property had been appraised at $450,000 and the Herculaneum property at $375,000. The assessed valuation for property tax purposes was considerably less than this amount, Moundsville being taxed on a base of $240,000 and Herculaneum on $200,000. Kraft had been offered, shortly after taking title to the properties, $380,000 for Moundsville. As recently as November, he had been offered $400,000 for the Herculaneum parcel. Kraft knew that the original owner had purchased both parcels together for $270,000 in 1938. Kraft estimated that the buildings would be in good, usable condition for at least another 30 years. Although he was not certain, he believed that the amount of the original purchase price attributable to the land was something in the vicinity of $100,000.

Rental Collections: Rental receipts for the year amounted to $22,975. Roland found, during the year, that $1,040 of that amount was for rental payments that were due but not paid prior to April 27. On December 31,

$1,005 in rentals was due but not received. (See Exhibit 2 for Roland's record of rent receipts.)

Repairs to Buildings: During the year several situations arose that required repairs to the buildings. Roland listed the repairs and classified them as follows:

Normal operating repairs:	
Moundsville	$ 440
Herculaneum	280
Replacement of hot water boiler at Herculaneum property (guaranteed for five years, but should be good for at least ten) (installed June 28)	550
Redecoration of office for new tenant at Herculaneum (completed late August)	125
Repair of fire damage at Moundsville property (Hosiery Shop)	18,500
Value of materials used from regular business[1]	
Moundsville—normal repairs	1,210
Moundsville—fire repairs	3,650
Herculaneum—normal repairs	640

Operating Expenses: In addition to items that he classified as repairs, Roland also noted the following normal operating costs:

Cleaning and janitorial costs:	
Moundsville	$ 350
Herculaneum	280
Fuel and electricity	
Moundsville	2,180
Herculaneum	3,200
Water rents	
Herculaneum	172

Advertising: As noted in Exhibit 2, an office in Herculaneum was vacated in June. At that time, Kraft authorized Roland to enter into an agreement which amounted to a three-year contract for advertising with a local newspaper. For a payment of $600, Kraft would be allowed up to 100 lines of classified advertising a month for thirty-six months. Since there were a number of lease expirations coming due in the next two years, Kraft thought it wise to take advantage of what could be a substantially lower advertising rate than normal for the area. Also, since there was no restriction on the subject matter in the advertisements, he felt that the lumber business could always make use of the contract. The agreement was dated June 3, and the only use of the advertising space in 1958 was to list the office vacancy in Herculaneum. Full lineage was used in June and July, and forty lines in August.

Tenant Security Deposits: Although there was no cash transmitted with the property, Roland found that several of the tenants had paid security deposits when they first took occupancy. Because the information that was originally turned over to Kraft was, at best, very sketchy, there was little to do but credit the various tenants with deposits in the amounts that they claimed. As best as he could determine, the amount of deposits to be recognized was $1,030 (see Exhibit 1).

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[1] No payment as such was made to the lumber business for these. The figure given does not include Kraft's standard 25 per cent selling markup.

Water Rentals at Moundsville: One of the tenants at Moundsville had complained most vehemently that he was paying the water bill for all the upstairs tenants. When a plumber checked the situation in late May, he reported to Roland that the tenant was correct. All water consumed on the upper floor was being charged through the beauty shop meter and the beautician, Phil Mancuso, was actually paying the water bill for several other tenants. For $260, the plumber installed separate lines and meters and solved all but the problem of compensating the beautician for past payments.

Kraft's offer of $150 met with favorable response, but no formal settlement had taken place by December 31. Kraft had not decided whether to make a direct disbursement or to apply the amount of the settlement against future rents. Neither had he decided whether he should attempt to charge the other tenants for their share of the adjustment.

Fire Damage: In September, a fire damaged the Moundsville property, and it was necessary to expend considerable time and money in repairing the premises. The fire was confined largely to the hosiery shop and did little damage to other parts of the building. Between September and the end of the year, by which time the repairs were completed and the property almost completely restored to its original condition, Kraft spent $18,500 for the various costs of repairing the damage. Although he had not received settlement from the insurance company, he had been advised that the insurers would pay all costs up to $16,500 on the basis of their appraisal of the property at the time of the loss. The damage was not such as to require the hosiery shop to be closed down even while the repairs were being effected. The question of compensation for the inconvenience caused to the shop's business by the repairmen had not arisen, and Roland, having been in close contact with the tenant during this time, was sure that it would not come up in the future.

Fortunately, on the advice of his insurance broker, Kraft had ordered a three-year full coverage policy written on both parcels of property and had paid a $780 premium at the time that the coverage went into effect on May 1.

Roland found a note in his papers from the bookkeeper of the lumber company advising him that employees of the lumber and building supply firm had spent a total of 310 working hours (on company time) at the Moundsville property assisting in the repair work. These men had been paid on the regular firm payroll, and the bookkeeper estimated the average value of the time spent was $2.50 an hour.

Property Taxes: Both parcels of property were on school and village tax assessment rolls. The taxes were paid once a year, due not later than July 1, for the ensuing twelve-month period. Both Mr. Kraft and the previous owner made the required payments on the due dates. On the basis of the information that he acquired from village records, and from his own disbursement records, Roland determined that the tax payments for 1957 and 1958 were as follows:

	Moundsville	*Herculaneum*
1957	$5,311	$3,306
1958	5,601	3,544

Other Information: Roland checked the file of invoices, paid and unpaid, and determined at year-end that the total value of bills that had not been paid was $740. (This amount had been included in the calculation of costs of operating the properties.) He also calculated that his own total pay from April 27 to December 31 was $2,430. To the best of his knowledge he had a complete file on all matters pertaining to the rental properties and the foregoing information was fundamentally what the year-end reports would have to be based upon.

Roland wondered what he should state for the cash balance because Mr. Kraft had not established a separate bank account for the properties. Rather, he deposited all receipts in the regular firm bank account and made all disbursements from his regular business checkbook. He had at one time told Roland that, at least for the present, any funds that were needed to maintain the rental properties would be provided from the funds of the lumber and building supply company.

Required

1. Prepare, for Mr. Kraft, the statements that William Roland must obtain from the information that he has to work with. Prepare the statements in the form that you feel will be most useful to Mr. Kraft. Justify the choices you make where alternative treatments are available.
2. Assuming that Roland feels completely free to make suggestions to Mr. Kraft, what should he suggest?

EXHIBIT 1

Schedule of Properties, Tenants and Lease Provisions, 1958

Moundsville - Two-story, commercial building in main business section of town. Approximately 100-foot frontage with parking space and garages (rented separately) in the rear. Property also includes one frame residence, behind commercial property, facing on an access roadway.

Tenant	Nature of Business	Term of Lease	Expires	Monthly Rental	Security Deposit
Samuel Mossman	Hosiery shop	5 years	3/1/60	$500	$500
Wm. & Arthur Ross	Dental laboratory	5 years	3/1/60	65	-
Phil Mancuso	Beauty shop	*	*	125	125
Great Way Grocers	Food store	3 years	6/15/59	540	-
Barret Candy Corp.	Candy shop	3 years	11/1/58†	275	-
Raymond Ostrow‡	Dentist	3 years	3/1/61	125	125
Mae Muller	(Residence-Home)	(none)	-	75	75
Berwin Tile Co.	(Garage use)	(none)	-	65	60
Various others	(Garage use)	(none)	-	25	-

Herculaneum - Two-story corner building in main section of business district directly opposite railroad station. Approximately 150-foot frontage with parking space (rented separately) in the rear.

Tenant	Nature of Business	Term of Lease	Expires	Monthly Rental	Security Deposit
Bank of Herculaneum	Savings bank	5 years	8/1/61	$300	-
Joseph Flynn	Lawyer (and Village Magistrate)	5 years	1/1/59	60	-
Village of Herculaneum	Civil defense office	(no lease)	-	25	-
Betty Darmetkowski	Commercial letter office	2 years	2/1/60	80	$ 80
Phil and Betty Wade	Dry cleaner	3 years	2/1/60	150	-
Martin Villa	Stationery store	5 years	2/1/59	125	-
Adolph Meyer	Delicatessen	1 year	4/1/59	200	-
Seymour Jacobs	Manufacturers' agent	(no lease)	-	65	65
Ralph Lynne§	Unknown	(unknown)	-	60	-
Paul Richter	Accountant	1 year	9/1/59	60	-
(Various)	(Parking area)	-	-	30	-

*Unknown.

† Although lease has expired, no new lease has been written. Tenant paid rent for November and December.

‡ Sublets portion of his office to chiropodist; permitted in lease.

§ Vacated on June 1, 1958; office rerented on September 1 to Mr. Richter.

EXHIBIT 2

Record of Rental Receipts, 1958
Payments Received and Arrearages

	Arrears 4/27	PAYMENTS RECEIVED								Arrears 12/31
Moundsville:		May	June	July	August	September	October	November	December	
S. Mossman	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500
W. & A. Ross	-	65	-	130	65	65	65	-	130	-
P. Mancuso.	-	125	125	125	250	-	125	-	250	-
Great Way Grocers	-	540	540	540	540	540	540	540	540	-
Barret Candy	-	275	275	275	275	275	275	275	275	-
R. Ostrow	125	125	125	-	375	125	125	125	125	-
M. Muller	150	75	75	75	-	75	75	75	75	225
Berwin Tile	-	65	65	65	65	65	65	65	65	-
Garages	-	25	20	30	25	15	20	30	35	-
Herculaneum										
Bank of Herc.	-	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	$ 300	-
J. Flynn	$ 60	240	-	-	240	-	-	-	60	
Village of Herc.	-	25	25	25	25	25	25	25	25	
B. Dormetkowski	80	160	80	80	80	80	80	80	80	-
P. & B. Wade	-	150	150	150	150	150	150	150	-	150
M. Villa	-	125	125	125	125	125	125	125	125	-
A. Meyer	-	200	-	400	-	400	-	400	200	-
S. Jacobs	65	65	65	-	-	195	130	-	-	130
R. Lynne	60	120	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxxx
P. Richter	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxxx	xxxxxxxx	60	60	60	60	-
Parking Lot	-	20	25	20	35	40	35	25	40	-
	$1,040	$3,200	$2,495	$2,840	$3,050	$3,035	$2,695	$2,775	$2,885	$1,005

CASE 7

Berkshire Country Club

Prior to its reorganization in 1947, the financial management of The Berkshire Country Club had been carried on in a haphazard manner, primarily by volunteer treasurers. At this time, the club had been in operation for over 50 years, and was a focal point for the summer activities of a community in western Massachusetts, but despite the efforts of a number of members to adjust dues and charges for various services over a number of years to put the club on at least a break-even basis, the club had operated at a deficit in almost every year. These deficits had been made up by the donations of a few wealthy members, who informally assessed themselves a prorated share of the deficit. In the postwar years, the death of two of these members, together with increase in prices and a consequently larger deficit, forced a reappraisal of the club's traditional scheme of operations. Therefore, the club was reorganized in 1947, and at the same time the entire program of dues and charges was re-examined, in an attempt to (a) place the operations of the club on a self-sustaining basis, (b) to provide capital for the expansion of club facilities, and (c) to make the facilities of the club available to a larger number of summer residents through a proposed reduction in annual membership dues.

In the Fall of 1956, Mr. William Victor was asked to serve as treasurer for the following two years. Mr. Victor had been a member of the club for a number of years, and was a partner in a successful insurance brokerage firm in Providence, Rhode Island. After agreeing to serve as treasurer, he discussed the club's accounting procedures with the past treasurer, a retired lawyer. The past treasurer's secretary, who had maintained the records of the club for the past three years, was present at the meeting in which the following basic procedures were outlined.

The essential records of the club consisted of a cash-receipt and cash-disbursement journal, a general ledger, a 5 x 7 card file for each member to record accounts receivable (Exhibit 1), and a paid and unpaid file of invoices.

The cash receipts journal contained the following entries:

Debits:
  Cash
Credits:
  Membership Dues
  Junior Activity Dues
  Excise Tax
  Green Fees
  Guest Fees
  Locker Rentals
  Entertainment Revenue
  Dining Room Sales
  Snack Bar Sales
  Miscellaneous Receipts

The cash disbursements journal contained these account columns:

Credits:
  Cash
  Withholding Taxes
  Social Security
Debits:
  Dining Room—Purchases and Supplies
  Payroll—Pro
    —House
    —Junior Activity
  Snack Bar Purchases
  Entertainment Exp.
  Club Expense, General
  Junior Activity, Exp.
  Miscellaneous

Entries in the journals were made only upon receipt or expenditure of cash. Totals of the journal were posted to the ledger accounts monthly, with the Miscellaneous columns posted in some further detail as indicated by the income and expense items on the operating statement (see Exhibit 3).

Billings for regular membership dues were prepared by the secretary (based on the preceding year's membership classification and any informal notifications of changes in status), using the approved membership rates (see Exhibit 2). Copies of these bills were filed and total charges for each member were posted to a 5 x 7 card (Exhibit 1). When the dues were paid, the cash receipt was entered in the cash receipts journal, the copy of the bill marked *PAID* and the payment entered on the file card. Sometimes members would reclassify themselves, change the bill and make their payment of the new amount. In these cases the secretary accepted the reclassifications and noted the change on her copy of the bill.

The secretary billed separately for the Junior Activity dues, but used the same procedure as for Membership Dues. The charge was $40 plus excise tax for each child. The Junior Activity consisted of an organized program for children (age 8 to 13) of Club members and was intended to be self-sustaining. The chairman of the Junior Activity sent to the secretary, monthly, any bills for expenses incurred in the program. Sometimes these represented payments to other club members, and in these cases the secretary simply gave the member credit on his monthly account (see June 1 credit entry on Exhibit 1). The chairman also reported monthly, by letter, any additional charges, such as guest fees.

The Club Manager prepared a list of charges by members for purchases of Snack Bar cards by members of their families, and for meals in the Dining Room. The Snack Bar cards of $2.50 and $5 values were punched out as purchases were made in the Snack Bar. The secretary used these reports to prepare monthly statements using the following form.

THE BERKSHIRE COUNTRY CLUB
MONTHLY BILL

TO: ______________________________

Charge:

Snack Bar	________
Dining Room	________
Entertainment	________
Miscellaneous charges or credit	
________________	________
________________	________
Total:	========

The Club Manager also sent invoices to the secretary monthly for payment. In most instances he indicated the club activity to which the expense should be charged. For example, on a grocery bill of $100, he usually indicated that portion applicable to Snack Bar and Dining Room. However, the demands on the Club Manager's time during the summer were great and quite often the secretary was required to use her own judgment as to which account to charge for these disbursements. This fact partly explains the substantial amount in the General Club Expense account. In addition, the Club Manager's Petty Cash fund was replenished and charged to this Club Expense account without voucher support.

An Entertainment Committee was responsible for all special events, such as square dances, camp-fire suppers and barbecues. The Committee set the fees on each event with the intent to break even on an out-of-pocket basis. The Committee Chairman reported to the secretary the members attending and the amounts to charge. The report usually showed the total cost of the activity, but the bills were sent in by the Club Manager for payment. The secretary made the charge to the activity from these invoices, rather than from the Committee Chairman's report.

The Bar Committee was established during the 1956 season to operate bar facilities for the purpose of expanding these facilities through the profits of the activity. The entire operation was accounted for independently of the Club records. The $750 reported on the Operating Statement was part of the net gain of $1,051. The balance was retained by the committee as working capital.

Following the discussion of the procedures, Mr. Victor reviewed the records and prepared a tentative statement of Income and Expense. This statement and excerpts from his memorandum to the Governors are reproduced in Exhibit 3.

Required

1. In view of the objectives as reported in the treasurer's memorandum, what changes would you make in the system? Why?

EXHIBIT 1

Member's Accounts-Receivable File Card
(5 x 7 card)

Johnson, Mr. and Mrs. V. P.

1955					
June 1	Membership	$90.00	June 18	Paid	$ 90.00
Sept. 4	Dinners—2 at $3.50	$ 7.00	Sept. 28	Paid	$ 7.00
1956					
May	Membership	50.00			
	Junior Activity	55.00	June 1	Credit for materials used by Junior Activity	$ 5.00
	Tax	21.00			
			June 3	Paid	121.00
July 5	Square dance	$ 1.00			
12	" "	.50			
12	" "	.50			
21	" "	1.00			
26	Cook-out—2 at .75	1.50			
Aug. 1	Snack bar	2.50	Aug. 29	Paid	$ 7.00

EXHIBIT 2 Membership Dues Schedule

THE BERKSHIRE COUNTRY CLUB

TO ____

Bill for Dues - 1956 Season

ACTIVE MEMBER:

Over 21 and under 36 years of age as of June 1st (entitled to full privileges of Club for self and immediate family except green privileges)	$40.00	________
36 years of age or over as of June 1st (entitled to full privileges of Club for self and immediate family except green privileges)	75.00	________

NONRESIDENT MEMBER:

Available to persons eligible for Active Membership who do not reside for any part of the Club season within 20 miles of the Club (entitled to access to Club House and grounds - no green privileges)	15.00	________

SUSTAINING MEMBER:

Available to an individual otherwise eligible for Active Membership 60 years of age or over as of June 1st (privileges limited to access to the Club House and grounds and Club social functions only - no green privileges)	35.00	________

GREEN FEES:

Active and Sustaining Members (self and immediate family for the season)	50.00	________
Nonresident Members	30.00	________

Guest charges of $3 per person per game will be billed monthly.

LOCKER RENTALS:

Active and Sustaining Members (per locker) per year	5.00	________
Nonresident Members (per locker) per year	7.50	________

ALL CHARGES except where shown otherwise are for the entire season. If membership privileges are desired for one month they are available at two-thirds the full season rate.

TOTAL CHARGES ________

EXHIBIT 3 Excerpts from the Treasurer's Report

THE BERKSHIRE COUNTRY CLUB

MEMORANDUM

To: The Governors December 10, 1956
From: The Treasurer

With apologies for taking so long, I submit herewith a tentative statement of Income and Expense for the 1956 season's operations. Under the Club's present system of accounts, available data do not lend themselves readily to analysis of results until the books are closed on March 31 at the end of our fiscal year. The figures presented here are derived from a reconstruction and consolidation of cash receipts and disbursements, and accounts payable and receivable. I have little doubt that some of them may be in error to varying degrees because I have not had the time to trace through the individual accounts one by one, but I am fairly confident that they are not inaccurate to any significant measure. The secretary has been most cooperative and helpful, and the postings to the various accounts appear to be very accurate.

It would doubtless be possible to construct also a tentative balance sheet with the data available; however, lack of time has prevented my doing this and, in addition, there doesn't seem to be any pressing need for one at present. The salient balance sheet items would show, as of December 1, 1956:

Cash	$4,058.99	
Accounts receivable	2,783.69	(Billing to Members)
Accounts payable	993.09	(Trade bills, accrued taxes)

A payment of $750 was made during the fiscal year to date to reduce the principal of the outstanding mortgage. In addition, payments associated with the expansion of the Bar and Dining Room were made in the amount of $3,533.68.

It appears that some changes in the Club's system of accounts and accounting procedures will probably be desirable for the coming season. Both the nature and scope of activities have changed in recent years; these changes suggest a need for information more timely than that now available, and in a form which permits inspection of the performance of the various functional activities on an individual basis. It is also highly desirable that this objective be accomplished without a material increase in the demand upon the time of those individuals who play a part in the record-keeping process. I am doing some experimenting on a possible revised system, and plan to present a firm plan to the Governors well before the start of the 1957 season. . . .

. . . In summary, it seems to me that the major item of concern is to bring our expansion program and profitability in line for the coming years. This would seem to involve an upward revision of income via some combination of dues, meal and refreshment prices, and possible new charges, or a downward revision or stretchout of planned expenditures, or both. Since the recent philosophy of the Club's operations has, with proved success, emphasized lower dues, removal of some ancillary charges, and meal and refreshment pricing closely tied to costs, the governors will probably approach the problem of increasing rates with considerable circumspection. My own feeling in this regard is that any increases should be built around user charges rather than undiscriminating raises in dues, etc. At any rate, the decisions on the above suggested courses of action are clearly not for me to make, but the appropriate people should continue to think about them. I'll be glad to try to supply any figures which might help this thought process. Finally, any comments you have will be most welcome.

EXHIBIT 3, cont'd

Enclosure

THE BERKSHIRE COUNTRY CLUB

Preliminary (Unaudited) Statement of Income and Expense—1956 Season

Income			
Dues, membership	$16,679.01		
Dues, Junior Activity	4,519.25		
Dues, gross	$21,198.26		
Less: Excise tax on dues	4,567.36		
Dues, net		$16,630.90	
Guest fees		274.42	
Green fees		6,578.00	
Rentals		490.25	
Snack bar sales		3,734.51	
Dining room sales, gross	$ 3,406.11		
Less: M.O.A.T.*	155.74		
Dining room sales, net		3,250.37	
Entertainment revenue		3,003.81	
Gifts—Private party		75.00	
Tennis tournament charges		71.25	
Miscellaneous receipts		654.81	
Receipts from bar committee		750.00	
Total Income			$35,513.32
Expense			
Meals, purchases, and supplies		$ 3,319.35	
Pro salary†		3,500.00	
Payroll, house		4,224.66	
Junior activity		3,843.75	
Snack bar, purchases‡		2,657.18	
Administrative expense		1,384.60	
Entertainment expense		3,167.85	
Club expense, general		1,565.85	
Junior activity expense		449.94	
Taxes, property, and licenses		1,454.22	
Insurance premiums		1,483.24	
Interest payments on mortgage		240.00	
Prize purchases, tennis		224.00	
Audit expense		60.00	
Repair and maintenance			
Golf course	$ 3,237.48		
House	1,974.54		
Tennis courts	1,262.62		
Repair and maintenance—Total		6,474.64	
Miscellaneous expense		46.58	
Total Expense			$34,095.86
Excess—Income over Expense			1,417.46

*By special permission, the Massachusetts Old Age Tax has been paid to the state as collection on Dining Room Sales are made. Next year M.O.A.T. must be paid by the tenth of the month following the sale of meals, regardless of whether collection has or has not been made on such sales.

†The Golf Pro is in residence only during the summer months. In addition to salary, he has the concession for all golfing equipment and supplies.

‡These purchases include some sporting supplies, which are not carried in the Pro's Shop, such as Ping-Pong and tennis balls.

CASE **8**

Pearson's
Department Stores, Inc.

"Young man, I didn't hire you out of business school to waste my time with damn fool suggestions." The speaker was Don Pearson, Chairman of the Board, president, and major stockholder of Pearson's Department Stores, Inc., of Phoenix, Arizona. He was addressing Dennis Clements, a new employee, who had recently joined the company after his graduation, in June 1959, from a large eastern business school. "You accountants are all the same. Always looking at the rule book. Anything different frightens you. Now listen to me. I built this business myself without any help from accountants—or department store experts; in fact, despite them and their ideas. I believe in my own ideas, and I hired you because with your record you should be able to bring some imagination to your work. Now if you seriously want me to think that the only new idea you've come up with in your first month here is for my company to change its fiscal year, come back here in a week with a full presentation.

"I'm quite happy with our October 31 closing date. We've had that since we started. I don't want to start messing around with changing dates. Why should I? You'd better have some pretty good reasons next week. If you're not going to do your job the way I like it, you can go sell shoes. Accountants! I should never have allowed any of them around this place!"

COMPANY BACKGOUND

Don Pearson had moved to Phoenix soon after his separation from the Navy after World War II. Using his savings, he rented a small store and set himself up in business as "Don's TV." He had some training in electronics, and his aim was to build up a TV service shop, and then to branch out into TV sales after he had become known in the Phoenix community.

Business was slow for the first few years. Then, in 1949 a local appliance dealer went into bankruptcy, and Mr. Pearson purchased twenty-five TV sets from him at a big discount. This was a calculated risk, because he could not afford to have his working capital tied up in excessive inventory for too long. His solution was quite logical, he thought. He reasoned that handling the extra sales volume would hardly add anything to his costs of doing business. This meant that he could offer the sets at substantial discounts below their normal price (hoping that customers would be attracted, as he had been, by the low price), and still make a fair profit. Because he was selling at such low prices, he would insist on full cash payment at the time of sale.

The experiment was a resounding success. The twenty-five sets were sold in a matter of days, and customers continued to clamor for more low-price sets. Mr. Pearson, who was very aggressive by nature, decided that this was his opportunity to get into TV retailing. He arranged for a loan from members of his wife's family, rented a new store, and set about looking for more TV sets. He analyzed his first success into four rules: (1) good quality sets, (2) low markup, (3) cash sales only, and (4) rapid inventory turnover. He decided to keep to these rules, as they seemed to assure him of a satisfactory profit, and yet to differentiate his business, in the public's eyes, from that of the ordinary dealer.

The next five years saw expansion beyond Mr. Pearson's wildest dreams. Literally, his sales volume doubled each year. Although he sometimes found it difficult to obtain merchandise for resale at low prices, he was usually able to get around the manufacturers' attempts to keep their products from him, or to restrain him from selling at below normal prices. During this period he set up a number of new stores in other cities in the West and Southwest, including Tucson, Albuquerque, Amarillo, Denver, Salt Lake City, and San Diego, all run on the same lines as "Don's TV" in Phoenix. At the same time, he found that he was under considerable pressure from his customers to broaden the lines he carried. First as personal favors, and later as store policy, he began to stock radios, refrigerators, home freezers, and other electrical appliances, selling them all under his basic, original rules.

DEVELOPMENTS IN 1955

The only problem that Mr. Pearson could not handle with his own ingenuity was that of finance. Aggressive expansion required working capital, even though the stores maintained a high rate of inventory turnover and offered no credit. By early 1955, although the capital employed in the business had grown considerably through the retention of earnings, and from sales of stock to Phoenix investors, he had come to the conclusion that some major outside financing would soon be required if the business were to continue to expand as planned.

After numerous consultations with his legal counsel, and later with a group of investment bankers, he finally decided to have a public stock offering at the end of the year. No alternative means of financing seemed feasible. As it was, the local bank was not too ready even to provide short-term, self-liquidating credit to finance inventory build-ups, as they felt that, despite its expansion, the company had not yet grown to financial maturity. They suggested that the addition of more permanent capital would improve the company's financial position (as disclosed in its annual financial statements) and make it easier for them to rate the company a good credit risk.

The new capital would become available at just the right time to sustain a radical change in the nature of the company's business, planned by Mr. Pearson. As an experiment, he had installed men's and women's clothing departments in the Phoenix store in February 1955. This innovation had met with a great reception from the public, who were apparently ready customers for discounted merchandise of any type, if the quality was good enough. When the new idea was tried out at the other stores, it worked equally well. With typical disregard for convention, Mr. Pearson decided that his next major expansionary move would be to convert his stores into full-range department stores. Not only would he strengthen the appliance departments, but he would also introduce a great variety of soft goods, sporting goods, toys, toilet goods, and food lines (in supermarket annexes). In line with this decision, and to add a little aura to the forthcoming stock issue, he changed the name of his company to Pearson's Department Stores, Inc.

The stock offering came to the market in December 1955. The offering was successful, and $2,250,000 was received by the company after deduction of all expenses of the 100,000 share issue.

CONVERSION TO DEPARTMENT STORES

The decision to convert the company's appliance stores to full-range department stores was carried out with little delay. By the end of 1956, the required building alterations and extensions had been completed. For management purposes, Mr. Pearson decided to distinguish between two broad classes of merchandise carried in his stores: hard goods and soft goods.

Hard goods included mainly the appliance side of the business, although, for convenience, Mr. Pearson included in this category small lines such as food. He regarded this category as the backbone of the business. By and large, hard goods sales tended to grow steadily, month by month, with little cyclical influence. On the average, Mr. Pearson tried to maintain hard goods inventories at the expected amount of the next forty-five day's sales.

Soft goods included mainly the numerous clothing departments. Mr. Pearson expected that the bulk of his stores' expansion from 1955 would be accounted for by the hoped-for rapid growth of these new departments. As a goal, he hoped that soft goods would amount to 50 per cent of total sales within ten years. Mr. Pearson realized that the soft goods sales pattern would show two strong trends over that period. He expected vigorous annual growth, but he knew that he would have to expect regular seasonal fluctuations, since there were two traditional soft goods selling seasons each year, one ending January 31 and the other on July 31. Although he would try to avoid having more than forty-five days' sales in inventory, he knew that there would be heavy build-ups before each season's peak, and equally heavy inventory depletion as seasonal clearances were undertaken in preparation for the arrival of each new season's merchandise.

When Dennis Clements started collecting some information that might be useful in assessing the proposed change in fiscal years, he was able to obtain sales and closing inventory figures from the time of the start of the department store phase. The figures are presented in Exhibit 3. He was also able to find the monthly sales and purchase breakdowns for the last complete fiscal year, the year to October 31, 1958 (Exhibit 4). No full and complete monthly financial statements were prepared by the company.

DENNIS CLEMENTS

Dennis Clements had first developed an interest in the Pearson corporation in May 1959, when he received a job offer from them shortly before his graduation from business school. His first move after receiving the offer was to telephone Graham Parker, a security analyst with a local brokerage firm. Mr. Parker filled him in on the background of the Pearson corporation, and then Clements asked him if he knew anything about their financial history.

"Yes, I do," replied Mr. Parker, "but it's not very useful to me. I have all their figures. However, every time I try to analyze their statistics in relation to the major department store chains, I run up against a brick wall. For some unknown reason they use an October 31 fiscal closing date, and I don't think there's another large retail chain in the country that does.[1] Believe me, it's a pretty sore point with our local group of security analysts. We get a lot of inquiries about the stock, and we just don't have any standard data by which to judge it. Look, Dennis, if you go to work for them, why don't you try to get them to change to a more reasonable date? I'm telling you, they're minor league as far as I'm concerned right now. I simply never know what to make of their figures—cutting right smack into the middle of the other stores' cycles. How would it be if I sent you a comparative analysis we made the other day? It'll help you appreciate our problem [see Exhibit 6]. By the way, I hear Don Pearson's quite a tiger. You want to be careful with him."

Dennis Clements took the job offered to him, but Mr. Parker's words had made an impression on him. He thought to himself that if he could do something to help improve the company's reputation, it would start him off well. He had therefore approached Mr. Pearson, and had received the response reported earlier. It seemed as though he now had a project on his hands.

TREASURER'S VIEWPOINT

The first person with whom Clements discussed his proposal, after talking to Mr. Pearson, was Mr. Antony A. Mills, the treasurer. Mr. Mills said that he could see advantages as well as disadvantages in a change. He understood the security analysts' problem, but he did not like the fact that any change by the company would mean an earnings report for a broken period, before the new twelve-month basis took effect. This odd period might distort the company's growth record. It would always have to be distinguished from prior and subsequent periods in all future financial summaries. Furthermore, it would obviously take some time before the company could develop a series of annual figures on the new basis, for use in its internal comparisons. Mr. Mills pointed out that

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[1] The Harvard Business School Research Bulletin "Operating Results of Department and Specialty Stores in 1958" (Bulletin #155, June 1959) indicated that the fiscal closing dates of the 331 department stores included were as follows:

	Number of Stores Reporting for Years Ended		
Sales	*December 31, 1958*	*Jan. 31, 1959*	*Other*
Less than $1,000,000	38	63	5
$1,000,000-$20,000,000	18	144	2
More than $20,000,000	1	60	–
	57	267	7

retention of the October 31 closing date would at least make for internal consistency. (1957 and 1958 Financial Statements are shown in Exhibits 1 and 2.)

Mr. Mills was also a little concerned that a new balance sheet date might be chosen at a time when a substantial amount of short-term borrowing would be outstanding. Such borrowing was purely temporary and self-liquidating in the company's case, as inventory built up and then was depleted. Disclosure of such indebtedness on the annual balance sheet might give a misleading view of the company's financial position. As an example of a typical year's loan transactions, he showed Clements the company's loan account with the South-Western National Bank for the 1958 fiscal year (Exhibit 5). On the average, the company paid for its purchases within a month of their arrival.

TAX CONSIDERATIONS

Dennis Clements also discussed the company's tax position with Mr. Mills. His specific concern was what effect a fiscal year change would have on the timing of income tax payments. Mr. Mills told him that the regulations were spread through a number of different sections of the Internal Revenue Code, but as far as Pearson's was concerned, they required that payments be made as follows:

(1) On the fifteenth day of the ninth and twelfth months of the fiscal (or taxable) year, equal installments totaling 50 per cent[2] of the excess of estimated tax over $100,000;

(2) On the fifteenth day of the third and sixth months following the close of the taxable year, equal instalments totaling the balance of the unpaid taxes.

For taxable years less than twelve months (occasioned by a date change) the closing date of the short period would be regarded as the closing date of a regular taxable year, as far as due dates are concerned.

Permission would be required for a date change, but Mr. Mills did not think that that would present any problem.

EFFECT ON THE ANNUAL AUDIT

When Mr. James D. Pettit, the senior partner of the company's firm of CPA's, was consulted, he pointed out that he would naturally accept any date that the company chose. However, he emphasized that an important part of his audit was the attendance of his staff at the year-end inventory-taking. Since Pearson's did not maintain any inventory or other records that could establish the amount of the closing inventory, it was necessary, in each store, for store personnel to list all merchandise in stock at the end of the fiscal year. This process usually took several days' concentrated effort. Established auditing procedures required the auditor's observance of the inventory-taking process, in these circumstances. This was necessary for the auditor to be in a position to form an opinion as to reliability of the amount stated as inventory in the financial statements.

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[2] Percentage is applicable to tax years ending on or after December 31, 1959. The period 1955 to 1959 saw an acceleration of tax due dates; the equivalent percentage for the year December 31, 1958, through December 30, 1959, was 40 per cent; for the previous twelve months it was 30 per cent, and so on.

In the past, it had always been necessary for Mr. Pettit to hire additional temporary help at Pearson's inventory time, so as to be able to carry out his duties properly. The CPA firms that reported to him on their audits of the stores in the cities outside Phoenix all experienced the same pressure at this time. However, if the company were to select a new date in the accounting profession's traditionally busy period, December 31 to April 15 (the "tax season"), it would simply mean that the costs of the temporary help charged to the Pearson account might be higher. Conversely, a new date in the mid-year slack season would probably mean less strain on the CPA's staff resources, less overtime and quite possibly better quality auditing, if Mr. Pettit were able to put his better men on the account and thus also smooth out his own firm's work cycle.

Mr. Pettit's total fee was currently around $60,000 per year (including work by out-of-town accountants). He said that a short fiscal year would mean no reduction in his fee. However, if the volume of work connected with inventory-taking, and, for example, the confirmation of accounts payable, were to be substantially reduced, he might be able to hold off for a year the usual $5,000 annual increase in his fee necessitated by the company's ever-increasing size.

After his interview with Mr. Pettit, Dennis Clements thought that he had spoken to everyone that might be affected by a change to a new fiscal year. He could now go ahead and complete the assignment given to him by Mr. Pearson.

Required

1. Prepare a balance sheet at January 31, 1958, and at any other date in the 1958 fiscal year that you feel would have been suitable as a new fiscal closing date. (The liability for income taxes at any interim date should be the beginning liability on October 31, 1957, less any payments that would be made assuming the October 31 closing date remained in effect, plus accrued taxes on any earnings during the interim period. You may

assume equal monthly changes for balance sheet items where no specific information is given about the rate or pattern of change.)

2. Which fiscal year date would be most favorable for Pearson's from the point of view of reporting financial data and ratios for comparison with competing department stores?
3. Would you recommend that Pearson's fiscal year be changed?

EXHIBIT 1

Balance Sheets at October 31, 1957 and 1958

	1957	1958
Current Assets:		
Cash	$ 1,305,000	$ 1,413,000
Inventories	10,275,000	11,290,000
Notes and claims receivable	132,000	164,000
Prepayments	169,000	253,000
Total current assets	$11,881,000	$13,120,000
Fixed Assets:		
Furniture, fixtures and improvements to leased premises, at cost	2,899,000	3,795,000
Less: Depreciation	520,000	1,117,000
Net fixed assets	$ 2,379,000	$ 2,678,000
Other assets	474,000	173,000
	$14,734,000	$15,971,000
Current Liabilities:		
Accounts payable	$ 5,862,000	$ 7,035,000
Accrued expenses and state and local taxes	893,000	778,000
Federal income tax	895,000	399,000
Total current liabilities	$ 7,650,000	$ 8,212,000
Stockholders' Equity:		
Capital stock ($2.50 par)	1,150,000	1,150,000
Paid-in surplus	2,114,000	2,114,000
Retained earnings	3,820,000	4,495,000
Total stockholders' equity	$ 7,084,000	$ 7,759,000
	$14,734,000	$15,971,000

EXHIBIT 2

Income Statements for the Years Ended October 31, 1957 and 1958

	1957	1958
Net sales	$60,314,000	$90,375,000
Less: Cost of sales	48,304,000	72,235,000
Gross margin*	$12,010,000	$18,140,000
Selling, general, and administrative expenses	9,929,000	16,769,000
Profit before federal income tax	$ 2,081,000	$ 1,371,000
Provision for federal income tax	1,071,000	696,000
Net profit	$ 1,010,000	$ 675,000
Retained earnings, beginning of year	2,810,000	3,820,000
Retained earnings, end of year	$ 3,820,000	$ 4,495,000

*Equivalent to a realized gross margin of 19.91% in 1957 and 20.07% in 1958. Mr. Pearson had standardized his pricing policy to aim for a 20% gross margin on all classes of merchandise. This policy was followed in 1959. Department stores run on traditional lines achieved a gross margin of about 36%, according to Mr. Pearson's information.

EXHIBIT 3

Operating Data, 1955 to 1959 (Dollar Figures in Millions)

	Sales			Closing Inventory			
Fiscal Year to October 31	Total	Hard Goods	Soft Goods	Total	Hard Goods	Soft Goods	Net Profit*
1955	$30.6	$28.7	$ 1.9	$ 3.9	$3.4	$0.5	$1.00
1956	46.7	41.0	5.7	6.3	5.2	1.1	1.32
1957	60.3	48.9	11.4	10.3§	8.2	2.0	1.01
1958	90.4	66.0	24.4	11.3	7.7	3.6	0.68
1959†	111.5	73.0	38.5	15.2	9.6	5.6	1.84
9 months to July 31, 1959† ...	88.2	59.1	29.1	‡	‡	‡	1.47

*Net profit after tax. Operating expense levels were inclined to fluctuate widely during the 1955-1959 period owing to heavy and irregular start-up expenses associated with store expansion moves.

† Estimated on the basis of trends through June 30, 1959.

‡ Estimates not available.

§ Discrepancy due to rounding.

EXHIBIT 4

Monthly Sales and Purchases Data, 1958 Fiscal Year (Dollar Figures in Millions)

	Total		Hard Goods		Soft Goods	
	Sales	Purchases	Sales	Purchases	Sales	Purchases
1957						
November	$ 7.5	$ 5.6	$ 6.0	$ 3.4	$ 1.5	$ 2.2
December	10.0	4.9	6.2	3.85	3.8	1.05
1958						
January	4.6	3.5	4.1	3.2	0.5	0.3
February	6.5	8.2	4.6	4.6	1.9	3.6
March	8.4	8.0	5.4	4.8	3.0	3.2
April	9.2	6.6	5.8	4.6	3.4	2.0
May	8.5	5.0	5.9	4.4	2.6	0.6
June	7.6	4.95	5.8	4.5	1.8	0.45
July	6.0	4.9	5.3	4.5	0.7	0.4
August	6.5	8.0	5.4	4.6	1.1	3.4
September	7.4	6.65	5.6	4.7	1.8	1.95
October	8.2	6.95	5.9	5.0	2.3	1.95
	$90.4*	$73.25	$66.0*	$52.15	$24.4*	$21.1

*Rounded totals. Exact totals are $90,375,000, $66,012,000 and $24,363,000 respectively.

EXHIBIT 5

Summary of Drawings and Repayments Under Revolving Credit Arrangement with the South-Western National Bank, 1958 Fiscal Year

	Drawn	Repaid	Loan Balance
1957			
November 2	$1,500,000		$1,500,000
December 16		$ 750,000	750,000
1958			
January 27	750,000		1,500,000
March 16	1,500,000		3,000,000
April 28		750,000	2,250,000
May 29		750,000	1,500,000
July 28		750,000	750,000
September 15		750,000	-
	$3,750,000	$3,750,000	

EXHIBIT 6

Comparative Statistics, Pearson's and Five Other Department Store Chains* (Dollar Figures in Millions)

	Pearson's Department Stores, Inc.	Allied Stores Corp.	Federated Department Stores, Inc.	R.H. Macy & Co., Inc.	May Dept. Stores Company	J.C. Penney Company
Fiscal Year:	October 31	Following January 31	Nearest Saturday to January 31 Following	Nearest Saturday to July 31	Following January 31	1958-Jan. 31, 1959; Previously December 31
Sales†						
1958	$90	$644	$653	$456	$541	$1,410
1957	60	633	636	448	534	1,312
1956	47	616	601	398	521	1,292
1955	31	582	538	376	494	1,220
1954	15	544	501	340	444	1,107
Working Capital‡						
1958	4.9	139	135	68	121	207
1957	4.2	145	126	71	116	211
1956	3.9	149	123	59	113	188
1955	1.2	149	110	67	112	183
1954	n.a.	130	96	59	105	176
Current Ratio§						
1958	1.6	3.4	3.4	2.9	2.7	2.6
1957	1.6	3.5	3.3	2.4	2.6	2.4
1956	1.7	3.5	3.1	2.3	2.7	2.3
1955	1.2	3.5	3.1	2.8	2.8	2.2
1954	n.a.	3.5	2.9	3.0	2.9	2.3
Inventory¶						
1958	11.3	91	69	51	62	193
1957	10.3	93	66	55	62	186
1956	6.3	95	66	48	57	180
1955	3.9	88	58	41	59	180
1954	n.a.	77	51	37	52	142
1953	n.a.	69	49	35	51	143

*Taken from published financial statements.

† For fiscal years named.

‡ Current assets less current liabilities at end of fiscal year.

§ Ratio of current assets to current liabilities at end of fiscal year.

¶ At end of fiscal year.

n.a. - Not available.

CASE 9

Brother-in-Law

Well, the mail can't be good every day. Today it's another letter from your brother-in-law. Seems like ever since you were admitted to business school, he's been acting like a junior-edition business consultant with an inside line (you) to *the* answer. Too bad sister is such a great gal or you'd really put this bird in his place. What does a guy have to do to keep peace in the family—better see what *this* letter says (read Exhibit 1).

Just as you thought? Well, it could be worse; your big mistake was in sending him that pamphlet about the analysis of financial statements. It was way over his head. After all, what's a botany major fussing with debits and credits for anyway? Better set him straight, though. One thing sure, whatever you say will have to be in straight, easy-to-understand English; no financial double talk or you'll set him to spinning like a top.

Best thing that you can do now is to pick up the I-H reports and do a little analysis work (see Exhibits 2, 3, and 4). Then drop "Brother Al" a line—clear and to the point, but make sure he gets it. Draw him pictures if you have to, but remember that if he doesn't get it, it's because of your explanation, and not because of his natural stupidity.

EXHIBIT 1

Pittsburgh
October 14

Hi--

Say, I've really got to thank you again for sending me that pamphlet. Ever since I received it I've been getting more interested in financial analysis all the time. Haven't finished reading the pamphlet yet — I've been too busy looking through the corporation annual reports in our library. And, did I ever come up with a good one — this looks like the blunder of the century, and I found it right in the published financial reports.

I don't know how it got by them, but the boys at International Harvester sure missed a big one in the 1958 report. All the time—page after page—they're talking about the profit they made even with conditions the way they were. You know the story. But somehow they accidentally let out that they lost over four million in working capital. I'd have swallowed that profit bit hook, line, and sinker until I saw the tipoff in working capital. How could they have muffed that one? It's sure easy to see that if working capital is going down you can't be making a profit.

I'll write again if I find anything else that will interest you. Let me know what you think of this one.

Keep up the good work,
"Brother Al"

P.S. I'm going to write to the company; thought I'd let you know first. Shall I sign both our names?

EXHIBIT 2

International Harvester Company
Balance Sheet as of December 31, 1957 and 1958

	1958	1957	Increase (Decrease)
Current Assets:			
Cash	$ 63,097,135	$ 61,053,168	$ 2,043,967
U.S. Government securities at lower of cost or market	89,033,021	91,879,037	(2,846,016)
Accounts receivable (less reserves for losses: 1958 - $3,383,010; 1957 - $3,471,881)	59,555,210	59,142,514	412,696
Trade accounts with subsidiaries	21,584,117	27,974,261	(6,390,144)
Inventories	321,221,086	323,680,943	(2,459,857)
Total current assets	$554,490,569	$563,729,923	($ 9,239,354)
Less Current Liabilities:			
Current invoices, payrolls, etc.	$ 72,042,103	$ 78,829,028	($ 6,786,925)
Accrued taxes	61,459,472	58,790,186	2,669,286
Dividends payable	8,366,402	8,366,402	
Trade accounts with subsidiaries	870,728	1,691,639	(820,911)
Total current liabilities	$142,738,705	$147,677,255	($ 4,938,550)
Net Current Assets	$411,751,864	$416,052,668	($ 4,300,804)
Property:			
Buildings, machinery, and equipment	$609,726,425	$585,420,622	$ 24,305,803
Deduct accumulated depreciation	297,109,741	278,523,271	18,586,470
Net depreciable property	$312,616,684	$306,897,351	$ 5,719,333
Land	17,725,965	17,371,087	354,878
Net Property	$330,342,649	$324,268,438	$ 6,074,211
Investment in Subsidiary Companies	$129,127,474	$121,093,486	$ 8,033,988
Other Assets	$ 8,578,706	$ 8,666,799	($ 88,093)
Prepaid Expenses and Deferred Charges	$ 3,160,694	$ 3,358,167	($ 197,473)
Total Net Assets in which Capital Was Invested	$882,961,387	$873,439,558	$ 9,521,829
Note Payable (30-year, 3 1/2%, due 1982)	$100,000,000	$100,000,000	
Equity Capital:			
Preferred stock issued and outstanding	$ 81,672,400	$ 81,672,400	
Common stock issued and outstanding	555,019,720	555,019,720	
Net income retained in the business	146,269,267	136,747,438	$ 9,521,829
Total Equity Capital	$782,961,387	$773,439,558	$ 9,521,829
Total Capital Invested	$882,961,387	$873,439,558	$ 9,521,829

EXHIBIT 3

International Harvester Company
Statement of Income for the Years Ended October 31, 1957 and 1958

Net Sales:	1958	1957	Increase (Decrease)
To dealers and users in the U.S.	$ 939,838,030	$ 985,203,895	($45,365,865)
Defense products	20,143,030	31,005,300	(10,862,270)
To subsidiary companies	138,408,894	170,479,293	(32,070,399)
Total	$1,098,389,954	$1,186,688,488	($88,298,534)
Deduct:			
Cost of goods sold	$ 899,483,878	$ 983,648,654	($84,164,776)
Selling and administrative cost	125,443,671	126,734,849	(1,291,178)
Total	$1,024,927,549	$1,110,383,503	($85,455,954)
Net Revenue from Sales	$ 73,462,405	$ 76,304,985	($ 2,842,580)
Other Income Credits & (Charges):			
Dividends from subsidiaries	$ 17,421,748	$ 16,916,958	$ 504,790
Interest earned	1,237,322	1,746,348	(509,026)
Interest paid	($ 3,584,585)	(3,519,665)	(64,920)
Charges for financing services on wholesale notes sold to IH Credit Corporation	(14,610,028)	(14,658,156)	48,128
Miscellaneous	(409,427)	109,813	(519,240)
Total	$ 55,030	$ 595,298	($ 540,268)
Income before Federal Income Tax	$ 73,517,435	$ 76,900,283	($ 3,382,848)
Provision for Federal Income Tax	30,530,000	31,280,000	(750,000)
Net Income	$ 42,987,435	$ 45,620,283	($ 2,632,848)

EXHIBIT 4

International Harvester Company
Other Information

SUMMARY OF NET INCOME RETAINED FOR USE IN THE BUSINESS FOR YEARS ENDED OCTOBER 31, 1957 and 1958:

	1958	1957
Balance at beginning of year	$136,747,438	$124,592,761
Changes during the year:		
Net income (Exhibit 3)	$ 42,987,435	$ 45,620,283
Cash dividends:		
Preferred stock, $7 per share	$ 5,717,068	$ 5,717,068
Common stock, $2 per share	27,748,538	27,748,538
Total dividends	$ 33,465,606	$ 33,465,606
Net increase for year	$ 9,521,829	$ 12,154,677
Balance at end of year	$146,269,267	$136,747,438

RECAPITULATION OF PROPERTY ACCOUNTS FOR FISCAL YEAR 1958:

Land, Buildings, Machinery, and Equipment	Production Facilities	Sales and Service Facilities	General Office and Other	Total
Balance, October 31, 1957	$531,519,402	$64,191,695	$7,080,612	$602,791,709
Additions during 1958	42,363,192	4,821,443	219,548	47,404,183
Sold, scrapped, etc. in 1958*	($ 20,959,669)	(1,589,171)	(194,662)	(22,743,502)
Balance, October 31, 1958	$552,922,925	$67,423,967	$7,105,498	$627,452,390
Accumulated Allowance for Depreciation				
Balance, October 31, 1957	$255,246,745	$20,159,603	$3,116,923	$278,523,271
Provision for 1958	35,953,638	2,703,729	297,822	38,955,189
Charges for property sold, scrapped, etc. in 1958*	(19,271,115)	(1,021,519)	(76,085)	(20,368,719)
Balance, October 31, 1958	$271,929,268	$21,841,813	$3,338,660	$297,109,741
Net Property	$280,993,657	$45,582,154	$3,766,838	$330,342,649

*Proceeds of $2,186,783 were realized on properties sold, scrapped, or otherwise disposed of during the year.

CASE 10

Ibbard Chemical Products Corporation

Ibbard Chemical Products Corporation was, at the end of 1958, a large-scale manufacturer of chemicals and chemical products for a wide range of uses. Major applications for its products were found in the heavy industrial, agricultural, automotive, animal nutritive, pharmaceutical, and potable spirit fields. Its production facilities were located in five states; sales and warehousing facilities were operated in all major cities across the country.

The company had, in recent years, placed considerable emphasis on the development of new products, as well as on a program aimed at achieving a high degree of diversification in the manufacturing facilities. Thus, in 1958 ICPC had a substantial investment in two major affiliated companies, and a lesser investment in several others. During that year it also made sizable investments in its own manufacturing and distributing facilities.

Comparative balance sheets for the company as of December 31, 1957, and December 31, 1958, are shown in Exhibit 1; an income statement for the year ended December 31, 1958, is presented as Exhibit 2. Additional information about the company is given below.

INVESTMENTS IN AFFILIATED COMPANIES

By the end of 1958, ICPC's equity in the net assets of the Hydrotomic Corporation exceeded the cost of its investment therein by $656,256. The excess of ICPC's interest in that company's earnings, over dividends received, amounted to $28,883 in 1957, and $70,318 in 1958.

The company's equity in Northern Chemical, as shown at cost in the balance sheet, represented a 42.7 per cent ownership interest. Since this affiliate commenced operations late in 1958, no appraisal of earnings performance was available.

The corporation's equity in the net assets of another subsidiary was less than the cost of the investment therein (included in other investments) by $17,023. No dividends have been received from this subsidiary and ICPC's equity in its net loss for the year was $9,626.

PRICE DETERMINATION AND RENEGOTIATION

Certain of the corporation's sales in 1955 and 1956 were subject to price redetermination and, in the latter year, to renegotiation by the U.S. Government. Provisions for estimated price redetermination refunds were made in the accounts in the appropriate years, and in amounts which the managers considered adequate. During 1958, a compromise settlement was under consideration which would require payment of some $299,444 in excess of the amounts previously provided. The additional amount was entered as a charge against operations in 1958 as an extraordinary item, and was credited to a current accrued liability account. However, if government claims (which were made prior to the proposed compromise settlement and which ICPC has been contesting) should be allowed, the net amount refundable would be approximately $513,000 in excess of the amounts thus far provided.

DEFERRED FEDERAL INCOME TAXES

In its financial statements, ICPC computed the provisions for depreciation and amortization by the straight-line method over estimated useful lives. For federal income tax purposes, however, those portions of plant facilities that were eligible for accelerated write-off were depreciated at rates in excess of normal straight-line rates. The excess of amortization and depreciation for tax purposes over straight-line depreciation resulted in a temporary tax reduction amounting to $943,200 in 1958. This amount was deducted from earnings and credited to the deferred tax account. The amounts so deferred were to be taken into income in future years when the depreciation allowable for tax purposes was correspondingly less than provided in the financial statements.

LAND, BUILDINGS AND EQUIPMENT

In 1958 the company added to its investment in existing plant facilities in the amount of $3,567,571. At the same time that a program of additional investment was being pursued, the company was also actively weeding out unproductive investments, particularly those in obsolete facilities. During the year, assets that were carried at a cost of $337,286 (accumulated allowances there-against were $183,112) were sold for $146,780. Also, assets that had originally cost $72,487, and were fully depreciated, were written off the books.

DIVIDENDS TO STOCKHOLDERS

Holders of ICPC shares received both a stock dividend and a cash dividend in 1958. The cash dividend, paid quarterly, amounted to $2,382,520 and was completely disbursed by December 31. A stock dividend of 263,688 shares ($1 par, common stock) was distributed in July 1958, and was recorded in the accounts at par.

Required

1. Prepare a funds flow statement (statement of sources and applications of funds) for Ibbard Chemical Products Corporation for the year 1958.
   Attention should be devoted to showing as much detail as possible, particularly concerning sources of funds from the disposal of fixed assets and uses of funds in the acquisition of new fixed assets.
2. If on any given item in your funds flow statement you believe there are alternative treatments, explain concisely why you treated the item as you did.

EXHIBIT 1

Comparative Consolidated Balance Sheets
December 31, 1957 and December 31, 1958

	December 31		Increase
	1957	1958	(Decrease)
Current assets:			
Cash	$ 7,981,231	$ 7,498,470	$ (482,761)
Marketable securities (at cost)	1,350,667	1,572,142	221,475
Accounts and notes receivable (net)	8,691,566	9,982,478	1,290,912
Inventories (at lower of average cost or market)	11,626,511	11,937,430	310,919
Total current assets	$29,649,975	$30,990,520	$1,340,545
Current liabilities:			
Accounts payable	$ 3,818,885	$ 4,614,149	$ 795,264
Accrued federal income taxes*	741,401	1,010,341	268,940
Other accrued liabilities	1,931,974	1,689,178	(242,796)
Long-term debt (due in 1 yr.)	-o-	1,404,000	1,404,000
Total current liabilities	$ 6,492,260	$ 8,717,668	$2,225,408
Working capital	$23,157,715	$22,272,852	$ (884,863)
Investments at cost:			
Northern Chemical Corp.	$ 1,522,719	$ 1,522,719	$ -o-
Hydrotomic Corporation	302,145	466,125	163,980
Other affiliates	59,587	113,767	54,180
Total investments	$ 1,884,451	$ 2,102,611	$ 218,160
Fixed assets:			
Land, buildings, and equipment (at cost)	$59,054,850	$62,212,648	$3,157,798
Less: Accumulated depreciation, amortization and obsolescence	26,499,124	29,085,050	2,585,926
Net fixed assets	$32,555,726	$33,127,598	$ 571,872
Goodwill and patents	$ 1	$ 1	$ -o-
Deferred charges	1,102,298	901,341	(200,957)
Total assets less current liabilities	$58,700,191	$58,404,403	$ (295,788)
Less: Long-term debt and deferred taxes			
3 3/4% notes payable	$22,500,000	$21,096,000	$(1,404,000)
Deferred federal income taxes	1,741,590	2,684,790	943,200
	$24,241,590	$23,780,790	$(460,800)
Balance for shareholders' equity	$34,458,601	$34,623,613	$ 165,012
Sources of shareholders' equity:			
Common stock - $1 par	$ 5,934,107	$ 6,197,795	$ 263,688
Additional paid-in capital	3,892,963	3,892,963	-o-
Retained earnings	24,631,531	24,532,855	(98,676)
	$34,458,601	$34,623,613	$ 165,012)

*These amounts are net of U.S. Treasury Tax Notes of $894,780 in 1957, and $261,000 in 1958.

EXHIBIT 2

Statement of Consolidated Earnings
Year Ended December 31, 1958

Operating income		$53,057,870
Operating costs		
Cost of sales	$38,978,427	
Selling, research, and administrative	6,267,513	
Depreciation and amortization	2,841,525	48,087,465
Earnings from operations		$ 4,970,405
Other income:		
Dividends from Hydrotomic Corporation		256,532
Miscellaneous other income		1,086,853
		$ 6,313,790
Other charges:		
Loss on sale of plant assets	$ 7,394	
Interest on borrowings	843,750	851,144
Earnings before income taxes and extraordinary items		$ 5,462,646
Federal income taxes (including deferred taxes)		2,615,670
Earnings before extraordinary items		$ 2,846,976
Extraordinary items		299,444
Net earnings for year		$ 2,547,532
Earnings retained at beginning of year		24,631,531
		$27,179,063
Less: Cash dividends paid	$ 2,382,520	
Stock dividends issued	263,688	$ 2,646,208
Earnings retained at end of year		$24,532,855

CASE 11

Cole Appliance Stores, Inc.

Cole Appliance Stores, Inc., operated a chain of small retail appliance outlets throughout the Midwest. Comparative balance sheets for the company as of June 30, 1957 and 1958, are shown in Exhibit 1. An income statement for the fiscal year ended June 30, 1958, is presented in Exhibit 2. Additional information about company activities during the year is given below.

EXPANSION PROGRAM

During the year the company opened eight new stores, purchasing the land and buildings in five locations and leasing store space in three other locations. Two old stores, judged to be inefficient, were closed down during the year. One of the stores closed for this reason was on a company-owned location and the land and building were subsequently sold for $16,000. This building originally cost $22,000, and depreciation accumulated at the date of sale was $14,000. The land had originally cost $6,000. The other store that was closed during the year had been in leased space.

New equipment and fixtures were purchased for each of the eight new stores. The equipment in stores that were closed was sold to used-equipment dealers. In one store, the equipment had an original cost of $6,400, accumulated depreciation of $4,300, and was sold for $800. In the other store the equipment had an original cost of $8,200, accumulated depreciation of $5,600, and was sold for $1,500.

APPRAISAL OF COMPANY-OWNED STORE LOCATIONS

In order to substantiate the company's request for an increase in the amount of its mortgage loans, company officers hired an outside appraisal agency to determine the true value of certain company properties. As a result of this survey, the value assigned to buildings on the balance sheet was increased by $50,000. This was accomplished by a concurrent increase in the Capital Surplus account. The company planned to amortize this increase in value over a 25-year life by making the following two-journal entries at the end of each fiscal year:

Depreciation and amortization expense	$2,000	
Accumulated amortization—Buildings		$2,000
Capital surplus	$2,000	
Earned surplus		$2,000

Company officers felt that this policy would allow a more accurate presentation of the financial position of the company at the end of each year and permit a more realistic statement of profits by charging against operations a larger amount for depreciation, reflecting the higher value of the assets being used in the business. This policy also was instrumental in helping the company secure additional mortgage loans (on old properties as well as the five new locations) during the year.

ACCOUNTING PROCEDURES FOR TELEVISION SERVICE CONTRACTS

One of the sources of income for the company was television service contracts. These contracts normally ran for a one-year period after the sale of a set during which the company guaranteed to perform any necessary normal maintenance work on the customer's set free of charge. Sales of service contracts were initially recorded as liabilities, and each month one-twelfth of the price of the contract was transferred to the Revenue from Service Contracts account.

ACCOUNTING PROCEDURES FOR INSTALLMENT SALES

Approximately 70 per cent of the sales of Cole Appliance Stores were made on the installment plan, under which customers made an initial down payment and paid off the balance in equal monthly installments over a 12- to 36-month period. Company policy was to recognize the gross profit from installment sales as collections were received. This was done by determining the average percentage of gross margin earned on installment sales and recognizing as income this percentage of collections. For fiscal year (FY) 1958 the calculations were as follows:

	Installment Accounts Receivable	*Per Cent Gross Margin*	*Unrealized Profit on Installment Sales*
Balances, June 30, 1957	$48,900,000	37.9	$18,546,400
Sales during FY 58	34,200,000	38.1	13,031,600
Totals	$83,100,000	38.0	$31,578,000
Collections during FY 58	31,600,000		
Gross margin recognized at 38%			12,008,000
Balances, June 30, 1958	$51,500,000		$19,570,000

DIVIDENDS

Cash dividends paid during the year amounted to $2,100,000. In addition, a 100 per cent stock dividend was distributed with no change in the par value of the stock.

Required

1. Prepare a funds flow statement (statement of sources and application of funds) for Cole Appliance Stores, Incorporated, for the fiscal year 1958.

   Particular attention should be paid to showing as much detail as possible in the funds flow statement concerning sources of funds from the sale of fixed assets and uses of funds in the acquisition of new fixed assets.

   If on any given item involved in your funds flow statement you believe there are alternative treatments, explain concisely why you treated the item as you did.

EXHIBIT 1

Comparative Balance Sheets, June 30, 1957 and 1958

Assets:	June 30, 1957	June 30, 1958	Increase or (Decrease)
Cash	$ 2,310,000	$ 1,792,000	$ (518,000)
Installment & misc. receivables	51,418,000	54,336,000	2,918,000
Inventories	18,109,600	18,873,000	763,400
Prepaid expenses	25,800	23,100	(2,700)
Total current assets	$71,863,400	$75,024,100	$ 3,160,700
Land buildings	$ 687,000	$ 854,200	$ 167,200
Equipment	372,000	444,000	72,000
Total assets	$72,922,400	$76,322,300	$ 3,399,900

Liabilities and Capital:			
Notes payable	$ 500,000	$ 500,000	$ -
Accounts payable	4,719,300	5,644,300	925,000
Accrued expenses and taxes	3,720,000	4,289,000	569,000
Television service contracts	1,210,300	1,326,000	115,700
Total current liabilities	$10,149,600	$11,759,300	$ 1,609,700
Mortgage loans payable	$ 300,000	$ 400,000	$ 100,000
Accumulated depreciation—bldgs.	281,500	287,500	6,000
Accumulated amortization—bldgs.	-	2,000	2,000
Accumulated depreciation—equip.	139,600	170,200	30,600
Reserve for unrealized profits on installment sales	18,546,400	19,570,000	1,023,600
Common stock	10,000,000	20,000,000	10,000,000
Capital surplus	-	48,000	48,000
Earned surplus	33,505,300	24,085,300	(9,420,000)
Total liabilities and capital	$72,922,400	$76,322,300	$ 3,399,900

EXHIBIT 2

Income Statement for the Fiscal Year Ended June 30, 1958

Revenues:			
Cash and regular charge sales		$10,417,000	
Less cost of goods sold		7,083,500	$ 3,333,500
Installment sales	$32,200,000		
Less cost of goods sold	21,168,400		
Total gross margin	$13,031,600		
Less portion deferred until collected	11,892,300	$ 1,139,300	
Plus: Margin realized by collections on prior year installment sales		10,868,700	12,008,000
Television service contract revenue		$ 1,248,000	
Less direct costs of contract fulfillment		712,000	536,000
Total gross margin realized			$15,877,000
Operating Expenses:			
Salaries		$ 6,782,000	
Rent		118,600	
Building repairs and maintenance		84,000	
Property taxes		34,000	
Insurance		20,000	
Depreciation and amortization expense		62,500	
Loss on sale of fixed assets		400	
Advertising and promotion		2,120,000	
Miscellaneous general and administrative expenses		1,237,300	10,459,500
Net profit before taxes			$ 5,418,000
Estimated federal income taxes			2,740,000
Net income			$ 2,678,000

CASE 12

Jensen Publishing House

The Jensen Publishing House was engaged in the publishing and selling of scientific textbooks. Established in 1921 as a partnership, the business, although small, had prospered despite competition from larger concerns. By 1934 it had attained a gross volume of $112,500. In that year one of the two partners retired. The remaining partner, Mr. A. J. Jensen, continued the business as a sole proprietorship, borrowing $15,000 on a five-year 6 per cent note in order to buy out the interest of the retiring partner. Mr. Jensen hoped that the progress of the business would permit him to retire all or a large part of the payments on this debt from earnings; and in 1935 and 1936 earnings were sufficiently large to make the realization of this hope quite possible.

By the end of 1937, however, Mr. Jensen had become concerned about the state of the business. The operating statement for that year showed that, despite an increase in gross sales over 1936, net operating profit had declined and was so small as to make it seem highly improbable that Mr. Jensen's plans for retiring his debt could be carried out. Comparative operating statements and balance sheets for 1936 and 1937 are shown in Exhibits 1 and 2. Mr. Jensen thought that it would be a good thing to have an analysis made of the unfavorable factors that had reduced the profits of the business. Accordingly, he asked the outside accountant who made up his annual reports to include something on the matter. The report shown in Exhibit 3 was the result of this request. It provides a comparison between the years 1936 and 1937; the accountant believed this comparison would disclose the changes in various factors affecting profit that had led to the unfavorable result for 1937.

The books published by the Jensen Publishing House were retailed at list prices which were not subject to change once they were announced, except for reductions made in efforts to liquidate excess inventories of slow-moving items. Bookstores were allowed trade discounts from the list price, the discount varying with the quantity ordered. The relationship between Jensen's wholesale and retail sales did not vary greatly. The gross margin used in computing the list price of a book varied with the length of the book, the difficulty of manufacture, the quality of paper, the number of illustrations, and especially with the estimated strength of the market for the book and with the number of copies printed. Royalties were determined by the drawing power of the author and by his bargaining ability; they were not subject to change once the original contract had been made. The amount of royalties due each author was computed and paid each month on the basis of copies sold in the preceding month.

In addition to books of its own manufacture, sold either at wholesale or at retail by mail, the Jensen Publishing House sold books of other publishers at retail, also by mail. These books were always sold at the full list price, and Jensen obtained them direct from the publishers at a uniform discount of 20 per cent off list. As in the case of Jensen's own books when sold at retail, postage was paid by Jensen.

The Jensen Publishing House purchased all its typesetting, electrotyping, printing, and binding service and therefore owned no printing plant. The business was so small that there was no distinct departmentalization of the publishing and selling functions; Mr. Jensen's time was divided among editorial, selling, and administrative duties. Two clerks and a shipper were the only employees. The concern occupied a suite of three rooms in a loft building; one was used for storage and shipping, another for a bookkeeping office, and the third for a general office and salesroom. Thus salaries, rent, light, heat, telephone, taxes, insurance, depreciation, and administration were fixed charges, which bore no relation to the volume of business. Advertising, travel, and delivery expenses (including postage) varied approximately with the amount of business done.

Required

1. In your opinion, what was the state of Mr. Jensen's business at the end of 1937? If you had been called in as a consultant, what investigations would you have made?

EXHIBIT 1

Comparative Statement of Operations and Income, 1936 and 1937

	1936		1937	
Sales		$70,768		$73,027
Less cost of goods sold:				
Beginning inventory	$11,677		$16,592	
Paper, printing, and binding	8,930		6,793	
Amortization of printing plates*	3,545		2,152	
Royalties	4,416		4,074	
Books purchased, net	39,660		41,173	
	$68,228		$70,784	
Final inventory	16,592		13,976	
Cost of goods sold		51,636		56,808
Gross trading profit		$19,132		$16,219
Less expenses:				
Administrative expense	$ 7,854		$ 7,941	
Selling expense	2,757		2,477	
Delivery expense	2,017		2,090	
Miscellaneous expense	353		451	
Total expenses		12,981		12,959
Net operating profit		$ 6,151		$ 3,260
Interest expense		900		900
Net income		$ 5,251		$ 2,360
A. J. Jensen, withdrawals		1,850		1,850
Addition to net worth		$ 3,401		$ 510

*In the book-publishing business, an electrotype plate usually is made of each page of a book after the type is set, and it is from these plates that the first and any later editions of the book are printed. Because of the heavy costs of setting type, a publisher normally has a large amount of money invested in plates. Since most books go "out of style" or are replaced by revisions in a limited period of time, the value of the plates declines rapidly. The cost of the plates of a particular book were charged to operations over a three-year period.

EXHIBIT 2

Comparative Balance Sheet

	Dec. 31, 1936		Dec. 31, 1937	
Assets				
Cash	$ 736		$ 783	
Accounts receivable	5,467		6,496	
Purchased books	1,329		1,256	
Manufactured books	15,263		12,720	
Supplies	273		302	
Total Current Assets		$23,068		$21,557
Prepaid Insurance		180		120
Electrotypes at cost	$ 6,087		$ 5,424	
less reserve	2,524		3,476	
		3,563		1,948
Fixtures	$ 3,077		$ 3,077	
less reserve	1,339		1,614	
		1,738		1,463
TOTAL ASSETS		$28,549		$25,088
Liabilities				
Accounts payable	$ 7,994		$ 4,021	
Customers' advances	46		43	
Accrued wages	73		82	
Accrued rent	150		150	
Accrued electricity	28		24	
Accrued interest	125		125	
Total Current Liabilities		8,416		4,445
6% 5-yr. note of 8/10/34		15,000		15,000
TOTAL LIABILITIES		$23,416		$19,445
NET WORTH		5,133		5,643
		$28,549		$25,088

EXHIBIT 3

Analysis of Changes in Loss and Gain Account, 1937 and over 1936

Sales increase	$2,259
Cost of sales increase	5,172
Gross profit decrease	$2,913
Expenses of operating decrease	22
Net operating profit decrease	$2,891

CASE 13

Industrial Uniforms, Inc.*

"What are the purposes of these comparative financial statements, and what are they to indicate to me?" This question greeted Bill Harris, the secretary-treasurer of Industrial Uniforms, Inc., as he entered the office of Roger Collins, president of the company. Spread out on the desk before Mr. Collins were the comparative balance sheets and income statements for the fiscal years ending in 1950 through 1956 and the monthly statements for fiscal year 1956 (see Exhibits 1-4). These statements had been prepared by Albert Tryor, chief accountant, and submitted to Mr. Collins.

Industrial Uniforms, Inc., was organized in 1932 by Henry Collins, Roger's father, as a distributor of industrial uniforms. The company was among the first to promote the use of matched industrial uniforms to replace ordinary work clothes of employees, especially for those persons having contact with the public. Initially the company handled the distribution of the uniforms to the service station operators of one oil company. From this small beginning the company had expanded rapidly. In recent months, in addition to major oil company service station attendants, regular sales were made to motor car dealer service departments and driver salesmen for dairy, bakery, and bottling companies. The organization had built its reputation on high-quality merchandise and quick delivery. By 1956 the operations of the company consisted primarily of retail mail order of industrial uniforms; approximately 80 per cent of total sales were made directly to individual attendants, drivers, and other employees, or to their employers.

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The senior Mr. Collins had operated the company essentially as a one-man business, handling directly all matters of purchase, production, sale, and finance. In 1948 the business was incorporated with all stock being vested in the hands of Henry Collins and his three children. Henry Collins had actively continued in direct control of the company's operations until his death in March 1955. At that time Roger Collins, 37, principal stockholder, became president of the company.

Roger Collins had been graduated from a large midwestern state university in 1940 with a degree in business administration, and since that time, had been associated with his father in the garment industry. Neither Roger's brother nor sister was directly associated with the operations of the company. Roger had been well trained by his father in all aspects of the uniform business and had given special attention to the sales function. As a step toward building a strong management organization for the still rapidly growing company, Roger made a number of organizational changes and sought to delegate to other members of the management team some of the responsibilities his father had always insisted on keeping to himself.

Bill Harris had assumed the duties of secretary-treasurer of the company in May 1955. Prior to World War II, and after receiving his AB degree in political science in 1939, Bill had worked as an industrial engineer in a steel fabricating plant. After serving four years in the U. S. Navy, he was discharged with the rank of Lieutenant Commander. For two years after his discharge he worked in the retail sales business, following which he was employed by Industrial Uniforms, Inc., as a salesman with the California Branch. He was transferred to the home office in 1950 where his time was divided equally between selling and advertising. After about a year he withdrew from the sales activities and devoted full time to advertising and promotion. Harris had continued in this capacity until after Henry Collins' death. A full-time advertising manager was hired at that time, and Harris was transferred into financial control areas of the business.

Industrial Uniforms, Inc., performed no manufacturing operations except to hem trouser legs to finished lengths, to order, and attach the purchasing company's embroidered insignia. The company purchased all the materials and findings and jobbed the actual production out to various garment factories at a flat rate per unit. The entire capacity of Waters Garment Company, a clothing manufacturer, was used by Industrial Uniform; other factories were called upon only when Waters was unable to meet the demands for stock. The daily production of Waters Garment

Company averaged: shirts, 70 dozen; trousers, 60 dozen; coveralls, 25 dozen; shop coats, 3 dozen; and jackets, 8 dozen.

Industrial Uniforms, Inc., normally carried over 3,000 different stock numbers and sizes of finished garments in stock. For example: in each individual fabric and color, shirts were stocked in ten neck sizes with three varying sleeve lengths; trousers were stocked in fifteen waist sizes. Most of the matched uniforms stocked by the company were made of cotton; in the past three years, however, increasing quantities of synthetic materials and wool had been used.

The company's chief accountant, Albert Tryor, who was about 45 years of age, had been with the company for eight years. Comparative monthly and annual statements similar to those shown in Exhibits 1-4 had been prepared for many years. In addition a schedule of the detail of the operating expenses was prepared monthly (Exhibit 5). The Daily Report Sheet (Exhibit 6) was distributed each morning for the previous day's operations.

Because many aspects of the financial and accounting operations of the business were still unfamiliar to him, Bill Harris had reviewed financial statements in some detail in preparation for discussions with Mr. Collins later in the week. Harris had not had an opportunity, in addition to his many other new duties, to gain as much familiarity with the financial operations of the company as he would have liked.

Bill Harris was anxious to accumulate the additional information from Albert Tryor and others that would enable him to provide a meaningful explanation of the statements to Mr. Collins. He believed that he should be prepared to discuss the specific uses that could be made of the financial data in the planning and control of the company's operations, and offer recommendations for improvement in the company's financial control data.

EXHIBIT 1 Comparative Balance Sheets for Fiscal Years Ending May 31, 1950-1956

Assets	1950	1951	1952	1953	1954	1955	1956
Current assets:							
Cash	$106,902	$137,487	$159,389	$ 40,034	$231,003	$249,689	$ 269,583
Accounts receivable	59,210	74,139	77,498	79,963	127,430	140,977	133,685
U.S. Government Bonds	50,000	50,000	100,000	100,000	50,000		
Inventory (lower of C/M)	187,921	197,677	198,730	304,884	273,065	406,273	562,550
Total current assets	$404,033	$459,303	$535,617	$524,881	$681,498	$796,939	$ 965,818
Deferred charges	2,044	4,457	4,694	5,867	6,085	8,347	4,804
Stock in Collins Realty Co.							7,500
Plant and equipment:							
Land		2,000	4,000	4,000	2,000	2,000	
Buildings (net)		40,570	52,496	50,235	65,527	62,592	
Furniture & fixtures (net)	3,666	4,218	4,851	8,834	12,996	15,514	26,243
Leasehold improvements (net)	2,575	644	9,635	7,642	5,648	3,655	5,878
Other assets:							
Cash surrender value of life insurance						3,361	3,594
TOTAL ASSETS	$412,318	$511,192	$611,293	$601,459	$773,754	$892,408	$1,013,837
Liabilities & Capital							
Current liabilities:							
Accounts payable	$ 16,740	$ 25,802	$ 30,671	$ 38,864	$ 39,657	$ 22,933	$ 59,792
Dividends payable	10,000	10,000	5,408	10,000			
Accrued taxes other than income	4,954	7,792	6,517	7,224	9,521	5,643	7,521
Accrued income taxes	41,854	64,607	97,389	32,929	110,781	123,062	140,138
Total current liabilities	$ 73,548	$108,202	$139,985	$ 89,017	$159,959	$151,638	$ 207,451
Deferred income	5,802	17,250	6,520	11,194	5,640	17,469	5,367
Due to officers	22,717	13,233	12,675	28,038	42,916	34,800	
Capital surplus:							
Capital stock	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Capital surplus	65,400	65,400	65,400	65,400	65,400	65,400	65,400
Donated surplus		13,835	13,835	13,835	13,835	13,835	13,835
Earned surplus	144,851	193,272	272,878	302,975	386,004	509,266	621,784
TOTAL LIABILITIES & CAPITAL	$412,318	$511,192	$611,293	$610,459	$773,754	$892,408	$1,013,837

Source: Statements audited by Wallace Cory & Company, Certified Public Accountants.

EXHIBIT 2

Comparative Operating Statements for Fiscal Years Ending May 31, 1950-1956

	1950	1951	1952	1953	1954	1955	1956
Net sales	$1,185,072	$1,361,015	$1,478,311	$1,541,224	$1,780,440	$1,975,997	$2,454,713
Beginning inventory	$ 152,069	$ 187,921	$ 197,677	$ 198,730	$ 304,884	$ 273,065	$ 406,273
Purchases (net)	792,382	903,892	946,200	1,157,916	1,077,428	1,346,465	1,796,378
Freight-in	14,088	13,755	14,410	17,300	15,591	21,678	28,432
	$ 958,539	$1,105,568	$1,158,287	$1,373,946	$1,397,903	$1,641,208	$2,231,084
Ending inventory	187,921	197,677	198,730	304,884	273,065	406,273	562,550
Cost of goods sold	$ 770,618	$ 907,891	$ 959,557	$1,069,062	$1,124,838	$1,234,935	$1,668,534
Gross profit on sales	$ 414,454	$ 453,124	$ 518,754	$ 472,162	$ 655,602	$ 741,062	$ 786,179
Selling department expenses	$ 87,212	$ 92,300	$ 102,489	$ 128,984	$ 139,483	$ 130,277	$ 208,974
Shipping department expenses	69,685	79,171	79,304	91,105	101,145	154,359	96,036
General and administrative expenses	149,981	160,646	172,907	182,629	202,577	212,484	206,196
Total operating expenses	$ 306,878	$ 332,017	$ 354,700	$ 402,718	$ 443,205	$ 497,120	$ 511,206
Operating profit	$ 107,576	$ 121,107	$ 164,054	$ 69,444	$ 212,397	$ 243,942	$ 274,973
Other income (expense)	731	1,921	3,591	3,582	1,413	1,741	(2,317)
Net profit before income taxes	$ 108,307	$ 123,028	$ 167,645	$ 73,026	$ 213,810	$ 245,683	$ 272,656
Provision for income taxes	41,854	64,607	91,164	32,929	110,781	123,062	140,138
Net profit for period	$ 66,453	$ 58,421	$ 76,481	$ 40,097	$ 103,029	$ 122,621	$ 132,518
Earned surplus—beginning of period	88,398	144,851	193,272	272,878	302,975	386,004	509,266
	$ 154,851	$ 203,272	$ 269,753	$ 312,975	$ 406,004	$ 508,625	$ 641,784
Adjustments:							
Prior year's income taxes			(13,125)			(2,138)	
Cash surrender value of life insurance						2,779	
Dividends paid	(10,000)	(10,000)	(10,000)	(10,000)	(20,000)		(20,000)
Earned surplus—ending balance	$ 144,851	$ 193,272	$ 272,878	$ 302,975	$ 386,004	$ 509,266	$ 621,784

Source: Statements audited by Wallace Cory & Company, Certified Public Accountants.

EXHIBIT 3

Comparative Balance Sheets
At Month Ends for Fiscal Year 1956

Assets	June 30 1955	July 31 1955	Aug. 31 1955	Sept. 30 1955
Current assets:				
Cash	$253,662	$264,029	$168,444	$130,987
Accounts receivable	127,215	96,911	97,143	121,630
Inventory (lower of C/M) (See Exhibit 7)	413,242	425,337	481,620	568,426
Total current assets	$794,119	$786,277	$747,207	$821,043
Deferred charges	14,600	12,536	11,777	19,231
Stock in Collins Realty Co.				
Plant and equipment:				
Land	2,000	2,000	2,000	2,000
Buildings (net)	62,347	62,301	61,856	61,611
Furniture & fixtures (net)	15,782	15,624	16,129	18,217
Leasehold improvements (net)	3,489	3,323	3,848	7,689
Other assets:				
Cash surrender value of life insurance	3,361	3,361	3,361	3,361
TOTAL ASSETS	$895,698	$885,422	$846,178	$933,152
Liabilities & Capital				
Current liabilities				
Accounts payable	$ 44,945	$ 23,909	$ 39,656	$ 98,752
Accrued taxes other than income	7,194	3,593	4,270	7,493
Accrued Income Taxes	136,762	146,062	85,850	93,261
Total current liabilities	$188,901	$173,564	$129,766	$199,504
Deferred income	15,500	7,719	7,079	15,573
Due to officers	4,083	6,983	9,832	9,820
Capital and surplus:				
Capital stock	100,000	100,000	100,000	100,000
Capital surplus	65,400	65,400	65,400	65,400
Donated surplus	13,835	13,835	13,835	13,835
Earned surplus	587,979	517,921	520,256	529,019
TOTAL LIABILITIES & CAPITAL	$895,698	$885,422	$846,178	$933,152

Source: Statements prepared by Albert Tryor, company auditor.

EXHIBIT 3, cont'd

Oct. 31 1955	Nov. 30 1955	Dec. 31 1955	Jan. 31 1956	Feb. 29 1956	Mar. 31 1956	Apr. 30 1956	May 31 1956
$146,343	$126,815	$166,899	$158,012	$140,778	$164,950	$164,648	$ 268,036
160,954	172,710	144,291	138,243	135,132	139,434	154,014	130,840
527,426	523,263	515,660	527,197	564,954	554,389	552,253	562,550
$834,723	$822,788	$826,850	$823,452	$840,864	$858,773	$870,915	$ 961,426
9,584	7,860	6,316	4,075	3,606	9,545	577	6,034
							7,500
2,000	2,000	2,000	2,000	2,000	2,000	2,000	
61,366	61,121	60,876	60,631	60,386	60,141	59,896	
18,517	19,798	20,514	21,268	21,250	21,483	22,657	25,732
7,523	7,357	7,191	7,025	6,859	6,693	6,527	5,878
3,361	3,361	3,361	3,361	3,361	3,361	3,361	3,594
$937,074	$924,285	$927,308	$921,812	$938,326	$961,996	$965,933	$1,010,164
$ 38,546	$ 46,046	$ 46,537	$ 50,698	$ 75,514	$ 80,705	$ 71,173	$ 58,897
5,305	7,225	9,999	5,001	5,578	11,211	7,195	7,521
123,560	82,700	91,500	94,400	91,300	96,200	106,000	140,138
$167,411	$135,971	$148,036	$150,099	$173,292	$188,116	$184,368	$ 206,566
28,532	24,503	13,665	6,071	3,029	3,554	9,699	2,589
4,320	6,620	5,620	2,720	2,920	5,520	(2,280)	
100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
65,400	65,400	65,400	65,400	65,400	65,400	65,400	65,400
13,835	13,835	13,835	13,835	13,835	13,835	13,835	13,835
557,576	576,956	580,752	583,687	580,750	585,571	594,911	621,784
$937,074	$924,285	$927,308	$921,812	$938,326	$961,996	$965,933	$1,010,164

EXHIBIT 4

Comparative Operating Statements for Months of Fiscal Year Ending May 31, 1956

	June 1955	July 1955	Aug. 1955	Sept. 1955
Net sales	$198,734	$141,416	$140,339	$196,995
Beginning inventory	$406,273	$413,242	$425,337	$481,620
Purchases (net)	136,616	93,548	152,271	213,579
Freight-in	1,817	1,929	2,849	3,833
	$544,706	$508,719	$580,457	$699,032
Ending inventory	413,242	425,337	481,620	568,426
Cost of goods sold	$131,464	$ 83,382	$ 98,837	$130,606
Gross profit on sales	$ 67,270	$ 58,034	$ 41,402	$ 66,389
Selling department expenses	$ 12,260	$ 13,418	$ 14,246	$ 21,324
Shipping department expenses	14,409	12,970	10,634	13,619
General and administrative expenses	13,938	12,404	13,188	13,983
Total operating expenses	$ 40,607	$ 38,792	$ 38,068	$ 48,926
Operating profit	$ 26,663	$ 19,242	$ 3,334	$ 17,463
Other income	750			
Net profit before income taxes	$ 27,413	$ 19,242	$ 3,334	$ 17,463
Provision for income taxes	13,700	9,300	1,000	8,700
Net profit for period	$ 13,713	$ 9,942	$ 2,334	$ 8,763
Earned surplus—beginning of month	494,266	507,979	517,922	520,256
	$507,979	$517,922	$520,256	$529,019
Dividends paid				
Earned surplus—ending	$507,979	$517,922	$520,256	$529,019

Source: Statements prepared by Albert Tryor, company auditor.

EXHIBIT 4, cont'd

Oct. 1955	Nov. 1955	Dec. 1955	Jan. 1956	Feb. 1956	March 1956	April 1956	May 1956
$269,767	$271,281	$211,344	$185,633	$178,699	$207,236	$230,547	$233,731
$568,426	$527,426	$523,263	$515,660	$527,197	$564,954	$554,389	$552,253
100,867	172,377	125,031	139,285	173,245	139,934	153,513	181,355
1,480	3,132	2,367	2,101	2,389	2,335	2,425	6,748
$670,773	$702,935	$650,661	$657,046	$702,831	$707,223	$710,327	$690,356
527,426	523,263	515,660	527,197	564,954	554,389	552,253	562,550
$143,347	$179,672	$135,001	$129,849	$137,877	$152,834	$158,074	$127,806
$126,420	$ 91,609	$ 76,343	$ 53,784	$ 40,822	$ 54,402	$ 72,473	$105,925
$ 27,705	$ 17,719	$ 12,834	$ 19,180	$ 19,453	$ 14,293	$ 17,128	$ 19,038
21,015	14,996	22,272	15,741	11,941	11,715	16,132	9,844
18,843	19,814	23,641	15,028	15,465	18,673	20,073	16,032
$ 67,563	$ 52,529	$ 58,747	$ 49,949	$ 46,859	$ 44,681	$ 53,333	$ 44,914
$ 58,847	$ 39,080	$ 17,596	$ 5,835	$ (6,037)	$ 9,721	$ 19,140	$ 61,011
$ 58,857	$ 39,080	$ 17,596	$ 5,835	$ (6,037)	$ 9,721	$ 19,140	$ 61,011
30,300	19,700	8,800	2,900	(3,100)	4,900	9,800	34,138
$ 28,557	$ 19,380	$ 8,796	$ 2,935	$ (2,937)	$ 4,821	$ 9,340	$ 26,873
529,019	557,576	576,956	580,752	583,687	580,750	585,571	594,911
$557,576	$576,956	$585,752	$583,687	$580,750	$585,571	$594,911	$621,784
		5,000					
$557,576	$576,956	$580,742	$583,687	$580,750	$585,571	$594,911	$621,784

EXHIBIT 5 Monthly Statements of Operating Expenses

	For the month of				
	January 1956	February 1956	March 1956	April 1956	May 1956
Selling department expenses:					
Commissions	$ 4,623	$ 5,225	$ 4,538	$ 6,022	$ 5,608
Salaries	1,756	1,649	1,653	2,485	1,685
Advertising & sales expenses	8,733	9,354	4,076	1,817	5,840
Travel	2,285	1,006	1,392	4,569	3,106
California Branch	1,470	1,763	2,054	1,571	1,889
New England Branch	313	456	580	664	910
Total	$19,180	$19,453	$14,293	$17,128	$19,038
Shipping department expenses:					
Salaries	$ 8,134	$ 3,668	$ 3,749	$ 8,031	$ 3,968
Shipping supplies	1,738	2,155	2,125	1,889	600
Miscellaneous shipping	725	559	703	488	61
Heat, light, power, & water	171	235	213	197	183
California Branch	2,754	3,987	22,874	3,216	3,282
New England Branch	2,219	1,337	2,051	2,311	1,750
Total	$15,741	$11,941	$11,715	$16,132	$ 9,844
General and administrative expenses:					
Executive salaries	$ 4,954	$ 4,854	$ 5,331	$ 6,454	$ 6,888
Office salaries	4,852	4,971	4,884	8,072	5,644
Taxes	608	657	1,257	682	1,931
Insurance	1,752	1,866	1,721	1,893	(5,561)
Office supplies	1,614	418	2,042	749	(226)
Depreciation and amortization	570	570	570	570	1,508
Rent	106	106	211	141	1,415
Dues and subscriptions	657	455	209	227	28
Postage	(537)	994	764	603	363
Research	74	1	276	119	1,069
Professional services	36	125	11	58	855
Telephone and telegraph	128	135	158	172	384
Employee welfare	45	5		4	40
Utilities	183	95	140	133	113
Bad debts	(138)	(10)	(2)		1,170
Contributions	15	20		5	278
Miscellaneous	109	203	1,101	191	133
Total	$15,028	$15,465	$18,673	$20,073	$16,032

Source: Statements prepared by Albert Tryor, company auditor.

EXHIBIT 6 Daily Report Sheet

Date ____________________

1. Cash in bank

Balance preceding day . . . ______________
Deposits . . . . ______________
Withdrawals . . . . ______________

Bank balance today . . . . . . ______________

2. Income Sales

TODAY . . . . ______________ Month to date . . . ______________

YEAR AGO . . ______________ Month to date . . . ______________

3. Shipments

TODAY . . . . ______________ Month to date . . . ______________

YEAR AGO . . ______________ Month to date . . . ______________

4. Production

Waters Garment Company		Other companies	
Lot No.	Dozens	Lot No.	Dozens

5. New York Spot Cotton Price Today . . . . ______________

EXHIBIT 7

Merchandise Inventory by Months for Fiscal Year 1956

	Original Cost			
	Finished Goods	Raw Material	Total	Market Value*
May 1955	$320,835	$216,469	$537,304	$406,273
June 1955	331,350	201,466	532,816	413,242
July 1955	309,445	236,648	546,093	425,337
August 1955	382,734	246,869	629,603	481,620
September 1955	412,750	296,800	709,550	568,426
October 1955	396,214	243,146	639,360	527,426
November 1955	411,419	237,898	649,317	523,263
December 1955	421,957	221,121	643,078	515,660
January 1956	460,780	197,792	658,572	527,197
February 1956	484,303	217,065	701,368	564,954
March 1956	486,091	187,728	673,819	554,389
April 1956	467,573	207,152	674,725	552,253
May 1956	517,482	253,849	771,331	

*Market value as determined by the company is based upon liquidation value for all finished goods and goods in process. This is very low because most of these items are specialty merchandise stocked for special purchasers.

CASE 14

Beldon Woolen Company (A)

The loss and gain statement of the Beldon Woolen Company for the nine months ending September 1, 1939,[1] showed a net loss of $151,025.24.

Since 1937, the last good year of the Beldon Woolen Company, its operating statement had consistently shown an unfavorable manufacturing and marketing situation. Early in September 1939, with the submission of the statement for the nine months of 1939 to the directors and stockholders of the company, the management proposed that the concern be liquidated. The plan was to liquidate the business "in an orderly manner," allowing reasonable time for the realization of the best possible values. Manufacturing of unfinished goods was to continue until the end of December, when the assets of the business would be sold under receivership at the highest prices obtainable under the circumstances.

The balance sheet of the company as of September 1, 1939 is shown as Exhibit 2.

Accompanying the above balance sheet was what the management had termed an "Analysis of Condition," the chief purpose of which was to segregate the amount of "net current" assets "available" to the holders of the company's stock and the amount of book value of plant similarly assignable to shareholders per share of stock held. This analysis was as shown in Exhibit 3.

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[1] The company's fiscal year closed November 30.

At the September meeting of the stockholders, the proposal of the management to liquidate the company was voted down, but with the understanding that if another six months' operations continued to look unpromising the liquidation plans would be reconsidered, probably at the regular stockholders' meeting scheduled for March 1940. Tied in with this action of the stockholders was a directors' decision to find a new general manager and president. By as early as the middle of the month the directors were able to make arrangements with suitable new personnel, and to examine with satisfaction the plans the newcomers were making to bring about helpful changes in the operating organization of the company.

These changes were not only of a manufacturing character, but extended also into marketing activities. Up to this time, the Beldon Company had sold its product through a firm of factors in New York City. The new management believed that the company could do a much better job than had been done before through setting up its own selling organization and handling its own promotional problems. On the production side they learned that during the last three years' operations "seconds," or substandard goods, had run as high as 22 per cent of total output. The general manager saw no reason why this ratio should not be reduced to a point as low as 1 per cent. Also, the new executives learned that a substantial portion of the company's stock of raw material was decidedly below standard quality. This fact, in addition to more or less obvious inefficiencies characteristic of the company's past manufacturing operations, was among the considerations that led them to conclude that vastly much more could be done to make profits for the Beldon Company than had been done at least over the last half-a-dozen years of the company's existence.

The task committee of the board that had been named to find the new executives had been fortunate to procure a general manager who, although idle at the time, had had some thirty-five years' experience in conducting woolen textile operations of almost the same character as those of the Beldon Woolen Company. Their man had built up a good reputation for himself as a vigorous and resourceful individual who prided himself on getting quick results that could stand the test of time.

Toward the end of September the new president was able to prepare for the directors and stockholders a statement showing what the condition of the company, under the new management, would "probably be by December 31, 1939." This statement (Exhibit 4) was intended to report on the results for the last quarter of 1939 that were expected to flow from the plans already put into effect to aid in the operating rehabilitation of the company. Of course this statement was expected to be examined in comparison with the September 1 "Analysis of Condition" that had been presented to the directors and stockholders early in September by the old management.

Not long after the statement in Exhibit 4 had reached the hands of the stockholders of the Beldon Woolen Company, a number of letters and telephone calls were received by the president asking how it was possible that the net current position of the company could be expected to show an improvement of $8 a share by December 31. Much was said to the effect that if so favorable a change as this was to take place, it was certainly desirable under the circumstances to have the facts explaining such gratifying results brought as clearly as possible to the attention of those who were responsible for deciding upon the long-range future of the company. In responding to these questions, the president requested the new management's auditors to clarify the statement of Exhibit 4, or rather to elaborate upon it in such a way as to answer the many questions which seemed to be bothering even friendly stockholders. The auditor's addition to the figures of Exhibit 4 was as shown in Exhibit 5.

Required

1. Prepare a balance sheet as of December 31 comparable with that shown for September 1, under the title of "Analysis of Conditions as of September 1, 1939."
2. Explain how depreciation on plant could constitute a source of improvement in net current position.
3. Explain where the auditor got his figure of "Profits on Inventory Realization." How could you explain the fact that the company was now expected to be so profitable? Would you have been satisfied with a report on expected progress that was limited to the auditor's figures?
4 Prepare a comparative balance sheet, containing the balance sheet as of September 1 and the projected statement for December 31; prepare your comparative statement so as to show net increases and decreases in assets and liabilities.

EXHIBIT 1

Loss and Gain
Nine Months to September 1, 1939

Manufacturing costs		$2,641,920.80
Selling costs		127,952.44
Other charges		339,443.98
		$3,109,317.22
Sales		2,946,768.71
Trading loss		$ 162,548.51
Net income rent	$ 8,008.27	
Miscellaneous gains	3,870.78	
Expense account	249.63	
	$12,128.68	
Bad debts	605.41	11,523.27
Net loss for nine months		$ 151,025.24

EXHIBIT 2

Condensed Balance Sheet
as of September 1, 1939

Assets

Plant		$3,629,217.08
Less allowed-for depreciation		1,236,095.97
		$2,393,121.11
Cash		624,915.81
Receivables		1,381,717.86
Inventories		1,340,068.60*
Prepaid		
Insurance	$61,148.65	
Interest	9,142.57	
Freight	3,721.36	74,012.58
		$5,813,835.96

Liabilities

Notes payable		$2,192,154.00
Accounts payable		17,057.32
Interest accrued		13,326.84
Taxes accrued		63,652.72
Surplus	$1,093,670.32	
Loss, 1939	151,025.24	942,645.08
Capital stock		2,585,000.00
		$5,813,835.96

*Cost or market of replacement, whichever is lower, with finished and partly finished goods of substandard quality at net disposal value.

EXHIBIT 3

Analysis of Condition as of September 1, 1939

Plant		$3,629,217.08	
Less depreciation		1,236,095.97	$2,393,121.11
Cash	$ 624,915.81		
Receivables	1,381,717.86		
Inventories*	1,340,068.60	$3,346,702.27	
Prepaid	$ 74,012.58		
Accrued	76,979.56	2,966.98	
		$3,343,735.29	
Less notes and accounts payable		$2,209,211.32	
Net current assets			1,134,523.97
			$3,527,645.08
Par value of capital stock			2,585,000.00
Surplus			$ 942,645.08
Net worth per share: Plant $92.58; Current, $43.88			

*Cost or market of replacement, whichever is lower, with finished and partly finished goods of substandard quality at net disposal value.

EXHIBIT 4

Condition of the Company as It Probably Will Be on December 31, 1939

The following analysis of condition is based upon the assumption that production about as planned will be carried through, using up the process material on hand and purchasing the minimum amount of additional material necessary to supplement that now owned; and that such material as is not required for production will be sold.

Plant	Net After Depreciation		$2,349,557.79
Cash	$720,000.00		
Prepaid insurance	30,000.00		
Inventory	360,000.00		
Receivables	980,000.00	$2,090,000.00	
Less notes payable	$735,000.00		
Taxes and interest accrued	32,000.00	767,000.00	
Net current			$1,323,000.00
Net current per share	$ 51.00		

EXHIBIT 5

Explanation of the Change in Net Current Value Per Share from September 1, 1939 to December 31, 1939, as Projected by the Report of the Management

Sources of Working Capital		Uses of Working Capital	
Profits on inventory realization	$144,912.71	Increase in net current assets (as below)	$ 188,476.03
Depreciation on plant	43,563.23		
	$188,476.03		$ 188,476.03

Increases in Net Current Assets		
Increase in cash	$ 95,084.19	
Decrease in accrued liabilities	44,979.56	
Decrease in notes and accounts payable	1,474,211.23	$1,614,275.07
Decrease in Net Current Assets		
Decrease in inventories	$ 980,068.60	
Decrease in receivables	401,717.86	
Decrease in prepaid items	44,012.58	$1,425,799.04
Net increase in net current assets (as above)		$ 188,746.03

CASE 15

Beldon Woolen Company (B)

The Beldon Woolen Company had grown to be a fairly large organization under seven different managements extending over a period of approximately 100 years. By far the larger portion of its plant had been constructed building by building, without the benefit of a long-range plan of plant development. The current president had taken over the control of the company, as already seen in Case 14 in the latter half of 1939, and among his plans for improving the company's operating efficiency were a number of proposals designed to concentrate and coordinate floor space facilities. In addition to plans for new construction and the purchase of new equipment, these proposals entailed the razing and scrapping or sale of a number of old buildings, the sale of land thus released, and the sale of obsolete machinery and equipment.

The financial effects of the proposed plant adjustments were, in round numbers, as follows:

Sale of 5 building units (including land) Depreciated cost, $175,000 (gross, $300,000, reserve, $125,000)—land cost, $3,000	$155,000
Cost of scrapping 2 units (land to be used for new plant) Depreciated cost, $6,000 (gross, $10,000, reserve, $4,000)	7,500
Old machinery and equipment sold (cost of removal $300)	18,000

Depreciated cost, $23,000 (gross, $40,000, reserve, $17,000)	
Additional old machinery and equipment sold	50,800
Depreciated cost, $33,000 (gross, $419,000, reserve, $386,000)	
New equipment bought	50,000
New construction, involving rebuilding old units and adding two new structures	275,000
Cost of moving	30,000

Required

1. The student is asked to show the effect of the expected plant adjustment transaction on the company's balance sheet as of September 1, 1939 (see Case 14).
2. Below are the balance sheets of the Beldon Woolen Company for the year-ends December 31, 1939, December 31, 1940, and December 31, 1941. Suggest explanations for the principal changes in the company's balance sheet position from December 31, 1939, to December 31, 1940, and from the latter date to December 31, 1941.

EXHIBIT 1

Comparative Condensed Balance Sheets as of December 31, 1939, 1940, and 1941

Assets	December 31, 1939	December 31, 1940	December 31, 1941
Current assets:			
Cash on hand and in banks	$ 380,340.33	$ 205,721.75	$ 109,005.91
Accounts receivable, less reserves	828,938.47	1,234,457.77	924,988.55
Inventories, less reserves	748,827.90	1,280,780.73	1,300,809.94
Return insurance premiums receivable (estimated)	40,636.72	32,542.87	...
Total current assets	$1,998,743.42	$2,753,503.12	$2,334,804.40
Investments	$ 819.54	$ 5,709.23	$ 5,709.23
Deferred charges:			
Unexpired insurance	$ 8,647.52	$ 2,518.98	$ 13,227.22
Prepaid interest and commission	722.00	13,722.49	...
Total deferred charges	$ 9,369.52	$ 16,241.47	$ 13,227.22
Fixed assets:			
Book values	$3,637,085.36	$3,313,407.14	$2,866,067.85
Deduct—Reserve for depreciation	1,266,095.97	2,558,928.84	2,101,700.11
Net book value of fixed assets	$2,370,989.39	$ 754,478.30	$ 764,367.74
Total	$4,379,921.87	$3,529,932.12	$3,118,108.59

cont'd

EXHIBIT 1, cont'd

Liabilities	December 31, 1939	December 31, 1940	December 31, 1941
Current liabilities:			
Notes payable	$ 970,000.00	$1,435,000.00	$ 225,000.00
Accounts payable	...	35,870.07	28,876.84
Advances from customers	...	20,580.35	3,542.83
Accrued pay roll	...	8,410.33	33,718.26
Accrued interest	10,703.25	7,941.75	5,120.50
Provision for cost of finishing unshipped sales	21,242.64	1,433.48	9,766.89
Provision for special commissions on unfilled orders	...	...	20,000.00
Provision for state taxes	...	...	6,000.00
Total current liabilities	$1,001,945.89	$1,509,235.98	$ 332,025.32
Capital stock—outstanding	2,585,000.00	1,292,500.00	1,938,750.00
Surplus	792,975.98	728,196.14	847,333.27
Total	$4,379,921.87	$3,529,932.12	$3,118,108.59

PART II

Formulation of Accounting Policy

A. *Policy Formulation for Specific Types of Transactions*

RECOGNITION OF REVENUE

CASE 16

Trumpet Magazine

In July 1960, the management of *Trumpet Magazine* entered into a contract with a door-to-door subscription sales agency, thus acquiring a new source of circulation for the magazine and raising a new accounting problem for Mr. Donald Hughes, *Trumpet*'s controller. Mr. Hughes had to decide how transactions under the contract should be treated; specifically, he had to choose one of three courses of action: (1) attempt to handle the transactions within the framework of the company's existing accounting policies regarding circulation income and expense, (2) recognize the unusual nature of the transactions and establish a separate policy for treating them, or (3) revise the company's present policies concerning circulation revenue and expense to permit a consistent treatment of both regular and new transactions under the revised policy.

HISTORY OF TRUMPET MAGAZINE

Trumpet was founded in 1882 by Mr. Nathaniel Franklin as a weekly household magazine of broad literary and topical value. From the beginning, *Trumpet* published signed articles and high-quality short fiction, a combination which suited the magazine to a wide audience. Circulation had grown rapidly, reaching a peak of 800,000 copies per week just prior to World War I. After the war, and the untimely death of Mr. Franklin, *Trumpet*'s editorial quality deteriorated rapidly. Although the magazine continued to survive, by 1946 circulation was only 250,000. At that time, a large minority interest in the company was purchased by Mr. Augustus Greene. Under Mr. Greene's aggressive editorship, *Trumpet* was rejuvenated and circulation began to climb, setting a new record of more than one million copies per week in 1959. In Mr. Hughes' opinion, the success of *Trumpet* since World War II indicated the paramount importance of editorial content to the success of a magazine.

Looking at the industry from a business point-of-view, Mr. Hughes compared magazine publishing to a three-legged stool, one leg representing each of the functions of editorial content, advertising, and circulation. No magazine could be a commercial success without good management in each one of these functions, all three of which, in Mr. Hughes' judgment, were interdependent. Advertising provided the primary source of revenue of the enterprise, but advertising rates and volume were dependent on the quantity and quality of the circulation (readership) of the magazine. Circulation, in turn, could not be achieved without attractive editorial content, and most of the cost of purchasing high-quality articles and stories for the magazine had to be paid for out of the advertising revenues. As Mr. Hughes said, "It's a complicated business, but a fascinating and challenging one."

Trumpet's circulation of slightly more than one million copies a week in 1960 was composed of newsstand sales of approximately 100,000 copies and deliveries to subscribers of over 900,000 copies. *Trumpet* was priced at $.20 per copy on the newsstand, and regular subscription prices were $6.50 for one year (52 issues), $12.00 for two years, and $15.00 for three years. Mr. Hughes pointed out, referring to Exhibit 1, that "newsstand sales are more profitable for *Trumpet* because the $.08 per copy we receive does not have to bear any other circulation expenses. Although we receive more revenue per copy on our regular subscription rates, we have to spend large sums of money convincing people to subscribe. Unfortunately, we don't know any way to increase the volume of newsstand sales, so nearly all our efforts to increase the volume of circulation are directed at expanding the number of subscribers."

The primary promotion device used by *Trumpet* to acquire new subscribers was to offer a six-month trial subscription (26 issues) for $1.69. The purpose of this half-price offer was to acquaint new readers with the editorial content of the magazine in the hope that they would get the "*Trumpet* habit" and would renew their subscriptions at the regular subscription rates. During 1960, 1,200,000 such trial subscriptions were sold, providing the magazine with 600,000 "subscription-years" (one copy to a subscriber during each week of the year) of circulation. The remaining 300,000 subscription-years delivered during 1960 were to regular (renewal) subscribers.

During the early 1950's, *Trumpet*'s circulation department had operated at a substantial "profit," defined as the difference between circulation income and circulation expenses. This definition of profit was used only for management purposes, because a true accounting profit also had to include the much larger revenue from advertising and the heavy expenses of editing, printing, and distributing the magazine. Nevertheless, *Trumpet*'s management thought that "circulation profit" was one measure of the health of the industry in general and *Trumpet* in particular. If the cost of acquiring subscriptions was greater than the revenue from subscriptions, this signified to *Trumpet*'s management that either (1) they had gone beyond the natural market for their magazine and were attempting to "force" the increases in circulation, and/or (2) increasing competition in the industry was making profitable operations more difficult.

The easiest way to insure a circulation profit was to minimize expenditures for circulation promotion and to eliminate cut-rate trial subscriptions. Theoretically, if the magazine were attractive enough editorially, it would sell itself and almost all the subscription revenue would be pure profit. The disadvantage of this theory was that circulation might be relatively small and, although "profitable" for the circulation department, advertising revenues would be much smaller than would otherwise be possible. For example, Mr. Edwards, *Trumpet*'s circulation manager, estimated that the magazine could probably maintain 400,000 subscription-years of circulation without spending any significant amount on promotion. If this were done, the circulation profit would be well over $2,000,000 a year (400,000 subscriptions at a $6.00 average price, less some expenses), compared to the 1960 results of only $425,000 of circulation profit. Mr. Edwards pointed out, however, that at half the current level of circulation, *Trumpet*'s advertising revenues would decline by $12,000,000. Printing and distributing costs would be less at a lower volume, but not in direct proportion; and therefore it was more profitable for *Trumpet* to operate with a small circulation profit than with a large one at a lower volume. In fact, Mr. Edwards said, many magazines were willing to incur large circulation losses in order to secure the revenues from higher advertising rates.

Trumpet's circulation profits had been declining steadily since 1956, although the total operating profit reported by the magazine had increased each year. In fiscal year 1960, *Trumpet*'s expenses for securing subscriptions were at a record high level of over $3,400,000 and were broken down by Mr. Edwards as follows.

Circulation Expenses, Fiscal Year 1960

	Number Sold	*Cost*
Cost of securing new trial subscribers		
Inserts in newsstand copies of *Trumpet*	50,000	$ 6,000
Radio and TV advertising	110,000	137,000
Inserts in other magazines	85,000	143,000
Direct mail solicitation	955,000	2,643,000
Total new subscriptions	1,200,000	$2,929,000
Cost of soliciting renewals from trial and regular subscribers		268,000
Salaries of creative and administrative staff of circulation department and other expenses		214,000
Total		$3,411,000

Commenting on activities in 1960, Mr. Edwards said, "The pressure in the circulation department can be pretty intense sometimes. Once the board of directors has set our circulation guarantee (a promise to advertisers that a certain number of copies of each issue would be sold), it's up to my department to see to it that the guarantee is met. We're currently guaranteeing 1,000,000 copies, and in order to deliver these during 1960 I had to sell 1,200,000 trial subscriptions. On my regular subscriber list, I have found that about 50 per cent of the subscribers will renew, so each year I have to replace half of my regular subscribers with new regulars. This means that I need about 12½ per cent of the trial subscribers to renew. The cost of getting a new trial subscriber runs pretty high sometimes—some of my direct mailings cost me $3.00 for each $1.69 subscription sold. Of course, you make it up when you sell the renewals. It only costs about $.20 to send our series of renewal letters, and any sales that result are at regular subscription prices. Therefore, we can afford to pay $2.00 or more to sell the initial trial subscription because from 10 per cent to 20 per cent of such sales will result in one renewal and, after one renewal, there is a 50 per cent chance that the subscriber will continue to renew year after year."

THE DOOR-TO-DOOR AGENCY CONTRACT

In the spring of 1960, Mr. Edwards had become concerned about the rising cost of selling trial subscriptions by mail. This method of selling was expensive because only a small percentage of people receiving the mailing would enter a subscription. The cost of a mailing, depending upon the type of literature and class of postage used, varied from $.05 to $.07 per piece. The percentage response, depending upon the effectiveness of the literature and the quality of the mailing list, varied from .5 per cent to as high as 3 per cent. On each major mailing list used, Mr. Edwards computed the "cost per subscription sold," and this cost varied from about $1.70 to $4.00. Mr. Edwards said, "As soon as we have to start using such poor mailing lists that our cost climbs above $2.50, we need to look around for another way to sell subscriptions."

In May 1960, Mr. Edwards was contacted by Mr. Douglas Greer, President of Nationwide Distributors, Inc., a company specializing in the sale of magazine subscriptions by door-to-door salesmen. Mr. Greer offered to add *Trumpet* to the list of magazines sold by his company and said that he thought his organization could sell 50,000 three-year subscriptions during each twelve-month period. Mr. Greer said that door-to-door selling was very expensive and, therefore, he wished to offer only a three-year subscription, thus raising the unit value of each sale. Mr. Greer wanted to offer the three-year subscription at the slightly reduced price of $12.50, but he also insisted that his heavy expenses made it necessary for his company to receive a commission of $13.00 on each sale. In effect, the way the arrangement would work would be that Nationwide would assume all responsibility for collecting from the subscriber and would keep the proceeds it collected. In addition, as each new name was added to the subscriber role, *Trumpet* would pay Nationwide $.50. Mr. Greer stated that this method of distribution would be cheaper for *Trumpet* than using poor-quality mailing lists, and that *Trumpet* would reap additional profits from the renewals that might be sold to these new customers at the end of three years.

After considering the offer, exploring other alternatives, and discussing it with other members of *Trumpet*'s management, Mr. Edwards signed a contract with Mr. Greer incorporating the terms described above.

TRUMPET'S ACCOUNTING POLICIES

Trumpet's accounting policy in 1960 regarding circulation revenue and expense was simply stated: subscription revenue was recorded as deferred income when received and recognized as current income when copies were delivered to the subscriber; all expenses in the circulation department were charged off against current income. Mr. Hughes explained that this policy had been adopted for several reasons. First, such a treatment was permissible for income tax purposes (although other reasonable and consistent methods were also allowed) and had the advantage of postponing the recognition of taxable income. Second, the method was conservative in that it did not anticipate future profits but did recognize all expenses. And finally, although it could be argued that the cost of acquiring a new trial subscription should be deferred as an expense of the life of the subscription, these subscriptions ran for only six months, and consequently the amount that would have been deferred would have been small and the period of deferral would have been short.

The new door-to-door agency contract could be handled within the existing policy, but Mr. Hughes was concerned that it would have a seriously unfavorable impact on earnings during the first year. If 50,000 subscriptions were sold, the total commission would amount to $650,000. For income tax purposes, Mr. Hughes did not plan to change his accounting procedure, since this large expense in the first year would merely reduce the company's current tax payments. It would be possible, however, to use different methods for tax and for corporate reporting purposes.

While considering what change, if any, to make in the policy for circulation revenue and expense, Mr. Hughes wondered if perhaps an even more drastic change should be examined. He remembered a conversation with Mr. Greene, the president, in which Mr. Greene had said, "I think you accountants are really blind to the economic facts of life sometimes. Look at the balance sheet that you prepare for the public (see Exhibit 1). According to you, our biggest liability is for 'unearned subscription revenue.' In my opinion that is no liability—actually it is our biggest asset. It represents over a half-year of circulation and, because of that circulation our advertisers will pay us twelve or fifteen million dollars. And many of those subscribers will renew, thus generating more advertising dollars. Why, I wouldn't sell our subscriber lists for $5 million—and neither would you."

Required

1. What policy should *Trumpet Magazine* follow in accounting for circulation revenues and expenses? If you believe a change in policy is desirable, compute the approximate effect it would have on reported income for fiscal year 1960.
2. Assume that fiscal year 1961 will produce the same operating results as 1960, except that 100,000 six-month trial subscriptions will not be sold (thus reducing the costs of direct mail solicitation by $300,000) because 50,000 three-year subscriptions will be sold by the door-to-door agency. Prepare pro forma financial statements for 1961 to reflect the effect of the several alternative accounting policies you believe Mr. Hughes should consider. (Remember that the procedure for computing taxable income will not be changed.)

EXHIBIT 1

Condensed Financial Statements
Income Statement for Year Ended June 30, 1960

Income from:	Advertising	$24,416,732
	Subscriptions	3,837,411
	Newsstand sales and miscellaneous	408,116
	Total income	$28,662,259
Expenses:	Costs of editing, printing, and distributing the magazine	$17,480,274
	Cost of securing advertisements	1,638,127
	Cost of securing subscriptions	3,411,421
	Administrative and general expenses	2,848,763
	Total expenses	$25,378,585
Operating profit		$ 3,283,674
Federal income taxes		1,702,391
Net profit after taxes		$ 1,581,283

Balance Sheet at June 30, 1960

Assets		
Cash		$3,041,461
Receivables		2,671,804
Inventories:	Drawings and manuscripts	975,418
	Paper, stationery, and supplies	1,518,311
	Total current assets	$8,206,994
Furniture, fixtures, and autos (net)		318,407
Other assets		148,609
	Total assets	$8,674,010
Liabilities and Capital		
Accounts payable		$2,017,397
Taxes payable		942,718
	Total current liabilities	$3,060,115
Unearned subscription revenue		2,117,932
Capital stock		400,000
Earned surplus		3,095,963
	Total liabilities and capital	$8,674,010

CASE 17

Industrial Factors, Inc.

In January 1960, Mr. Richard J. Morrison, treasurer of Industrial Factors, Inc., had just completed his review of the corporation's 1959 financial accounts (Exhibits 1 and 2). He was particularly pleased with the 1959 results; apart from the expected increase in gross income through the corporation's normal growth, 1959 was a considerably better year than 1958 because the expense "Provision for Losses" (equivalent to Bad Debt Expense) had been reduced from $657,000 in 1958 to $17,000 in 1959. This reduction had materially boosted net profits.

Mr. Morrison was concerned, however. He suspected that the nation's economy was due to take a downturn in 1960. If it did, then the corporation might once again have to absorb an abnormally high Provision for Losses, so that it would be difficult for the 1959 profit level to be maintained. Mr. Morrison felt that, because of this tendency to fluctuate, "profits," as reported in the corporation's annual financial statements, was not an accurate or meaningful figure. The Provision for Losses account, which was largely the cause of fluctuations in reported profits, was built up annually in accordance with set policies. Mr. Morrison wondered whether the corporation's present policy as it applied to providing for bad debt losses should not be reviewed and perhaps overhauled. If he found that the accounting policies currently used produced a distorted result he would strongly favor adoption of a new policy designed to provide a more meaningful measure of losses incurred and the net income remaining thereafter.

HISTORY

Industrial Factors, Inc., was founded in New York at the turn of the century. Its history and growth since that time were typical of the whole factoring industry.

Old-line factors, as they were called, developed primarily as service organizations for overseas and local textile manufacturers. They provided sales representation, storage and display facilities, delivery services, and usually assumed the risk of credit losses. At the time that Industrial Factors commenced business, however, the nature of factoring was undergoing a substantial change. The financial and advisory services that factoring firms provided were growing in importance, but client firms typically found that their own growth enabled them to perform the various merchandising functions better themselves. With the greater emphasis on financial services, factoring firms began to serve clients in many other branches of manufacturing industry, although textile concerns remained the backbone of their business.

PRESENT-DAY FACTORING

The services offered by Industrial Factors were not significantly different from those offered by other factors. Essentially, a factoring agreement was a continuous arrangement whereby the factor purchased, for cash, all a client's accounts receivable (from trade buyers), as and when they were created by shipments by the client. The price paid was determined by deducting the following from the face value of the client's invoice to his customer:

1. Any trade discounts allowed.
2. Discounting charges (equivalent to interest) calculated from the date that the invoice was purchased to its maturity date (date due). The rate charged was traditionally 6 per cent, but had been higher in recent years. Current practice was to gear it to the prime bank rate. Where clients did not withdraw the monies credited to them, Industrial Factors allowed interest thereon until the maturity date of the various invoices, so that interest could be earned, at maximum, to offset the amount charged. Since the total interest charged to clients was calculated on a time basis, it was Industrial Factors' practice, at each financial statement date, to adjust the total credited to the Interest Received account by deferring until the following period that portion of the interest that related to that period.

3. Factors' commission might range from 0.75 per cent to 1.75 per cent. The fee charged each client was fixed by arrangement, and varied between different clients according to the nature of the client's industry, his annual sales volume, his average dollar sale and number of customers, and the latter's average credit standing and terms of sale allowed.

In purchasing the accounts receivable, the factor stood to lose his money if the account were not paid. For this reason, shipments to the client's customers had to be approved first by the factor's credit officers. The client was, in consequence, relieved of the necessity of maintaining his own credit department.

A typical factoring arrangement specified that the client's customers were required to make their payments directly to the factor. Consequently, it was the factor who maintained the accounting records relating to the accounts receivable, and instituted collection procedures on delinquent accounts, again relieving his client of a burden.

All factoring companies claimed that there were several advantages in the factoring "package" they offered to their clients. They pointed out that there was no other single source of the many financial, credit, and accounting services that they offered. Furthermore, they offered these services against payment of a known cost.

As an illustration of the close relationship that existed between factoring companies and many of their clients, both in regard to services offered by the factors and in regard to banking and financial arrangements, it was a common experience that factoring relationships were maintained even when client companies did not have the need to discount all their receivables. The factoring companies would not permit their clients to discount selectively, although they would agree to arrangements to factor only those receivables arising out of a particular segment of a client's business. It could therefore happen that clients would not immediately draw out the full amount credited to them for receivables factored, if they did not need all the money at one time. As factoring companies customarily allowed offsetting interest on clients' credit balances up to the amount originally charged for interest, their clients, in effect, paid interest on only the actual amount of money made available and used. These clients' credit balances often amounted to large sums of money; the factors regarded these large sums as an indication of the confidence that their clients placed in them.

MECHANICS ON PROVISION FOR LOSSES

Technically speaking, the books of Industrial Factors contained two ledger accounts around which the bad debt problem focused. The first was a reserve account titled "Reserve for Losses." This account was reflected as a valuation reserve in the corporation's balance sheets; that is to say, it was shown as a deduction from the gross amount of Accounts Receivable.[1] The Reserve for Losses was traditionally maintained at 0.85 per cent of trade accounts receivable, and was therefore adjusted at the end of each month when financial statements were prepared. The percentage used dated back for many, many years. It represented a conservative judgment, in effect, that at any date, trade accounts in total were worth a minimum of 99.15 per cent of face value.

The normal procedure whenever a bad debt loss was recognized (detailed below) was that the amount involved would be debited against the Reserve for Losses. This was in line with the proposition that the reserve represented a "pool" held to cover any losses. Accordingly, it also became necessary, whenever financial accounts were drawn up, that the reserve be reinstated in the amount by which it had been depleted through recognition of losses.

The second ledger account that was used was titled "Provision for Losses." This was the account that was *debited* whenever any entry was made to *add to* (or credit) the Reserve for Losses. The Provision for Losses account was therefore an expense account and was reflected as an expense in the corporation's income statements. Under the setup used by Industrial Factors, any amount added to the Reserve for Losses did in fact represent a bad debt expense in the way that term was defined. This was why the Provision for Losses, which "fed" the Reserve for Losses, was treated as an expense account.

POLICY ON RECOGNITION OF LOSSES

As has been previously stated, the Reserve for Losses was adjusted from time to time to bring it up to 0.85 per cent of trade accounts receivable. Generally speaking, the adjustment was an addition to the reserve, since Industrial Factors' annual volume was increasing (Exhibit 5). This addition to the reserve, fed through the Provision for Losses, was regarded as an expense because of the stated assumption that a valuation reserve of 0.85 per cent was proper and correct.

To some degree, other charges to the Provision for Losses account were more directly related to actual losses. Of the two major loss categories, one was delinquent accounts. Such accounts were charged to the reserve and physically separated from the accounts receivable ledger.

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[1] In actual fact, Industrial Factors kept separate reserve accounts for trade accounts receivable purchased in the ordinary course of business, and for loans which it made directly to clients. The latter reserve constituted only a small part of the total, and we are not concerned with it or its operation in this case.

The criterion used in determining delinquent accounts could be any one of the following:

(a) Receivable became ten months old;
(b) Creditors' meeting held consequent to financial difficulties;
(c) Voluntary or involuntary petition filed in bankruptcy;
(d) Any other good and sufficient reason became apparent.

By Industrial Factors' past experience, any one of these criteria was sufficient to classify an account as a "bad debt." The procedure followed was to charge off the full amount immediately. Any later recoveries were netted against the amounts written off. No estimates were made of the recoverable portion of any delinquent account; it was presumed that the account was completely worthless until any recovery was received. This policy was followed rigorously; no recognition was given to any special circumstances that might make a particular account wholly or partly recoverable if it "qualified" as delinquent under any of the specific criteria listed. A summary of the past five years' figures for these write-offs (known as Credit Department write-offs) is given in Exhibit 4.

Beginning in 1957, a refinement had been introduced into the accounting procedure used to record the other major loss category, "slow-pay" accounts (accounts more than six months past due). Any account that became overdue to this extent was regarded as a potential loss. Up to 1957 these write-offs had been included with Credit Department write-offs; at that time, however, it was decided to record slow-pay write-offs separately, in order to provide more useful data on write-off categories. Therefore, beginning in 1957, it became the policy to make a separate charge to the Reserve for Losses for all accounts which qualified as slow payers. As with delinquent accounts, no estimates were made of likelihood of recovery of any or all of the amount involved. The six-month rule was enforced rigorously.

In actual practice, the prospect of full or even partial recovery was much greater on a slow-pay account than it was on a delinquent account (this was one reason for the differentiation). In fact, it was the corporation's experience that a large proportion of the slow-pay write-offs was recovered. Any recovery was, of course, recorded in the books by a reversal of the write-off entry, irrespective of the nature of the original write-off.

It will be apparent that there have been only two end results after a slow-pay write-off; the account would have been paid, or it would have become delinquent according to the criteria described above. In the latter event, the write-off was processed in exactly the manner described previously, without regard to the fact that the account had previously been written off as a slow-pay account. In this case, however, an adjustment would be made by reversing the original slow-pay write-off, that is, crediting the Reserve for Losses and debiting Trade Accounts Receivable. (A five-year detailed summary of the Provision for Losses account is given in Exhibit 3.)

OTHER POLICY CONSIDERATIONS

In his review of the policy implications of the write-off procedure already described, Mr. Morrison noted the following general considerations:

(a) Because the policy was both consistent from year to year, and followed one of the provisions of the Internal Revenue Code, the full amount debited as Provision for Losses each year was allowed for income tax purposes.

(b) Industrial Factors had been in existence for many years, and, perhaps to a greater extent than many other, newer firms, enjoyed a very strong reputation, both with its clients and in the financial world. As a long-established company, many of its procedures, including its accounting policies, were deliberately on the conservative side. The corporation's management felt that its conservative reputation was important and ought to be preserved. It was of considerable significance in the total "image" of Industrial Factors, Inc.

POLICY REVIEW

Mr. Morrison was not sure just what he ought to do about Industrial Factors' policy on providing for losses on accounts receivable. Accordingly, he solicitated some opinions from other executives of the corporation.

Mr. Eliot Falk, the head of the Credit Department, did not seem to be much concerned with Mr. Morrison's problem. He pointed out that the accounting for income and expense done by the controller's office did not affect his department in the least. He ran his department according to his own ideas. For example, he required credit officers to submit a report to him giving full details on all accounts subjected to write-off. This report included an estimate by the officer in question on the recoverability of the amount written off. However, Mr. Falk did not feel that these estimates were at all valid, or that they could be used in accounting for estimated losses. He felt that it was impossible, even for his credit experts, to make any kind of reasonable or realistic estimate of recoverability. When asked about it, he confirmed his present practice of not maintaining any record, under the names of the various credit officers, of the bad debts charged off by each. He assured Mr. Morrison that the credit officers felt no unwillingness to write off any account, and that they abided very strictly to the corporation's rules on the subject.

A suggestion was made by Mr. Tony Martley, one of Mr. Morrison's assistants. His idea was that the annual credit of the Reserves for Losses be fixed at, for example, one-eighth of 1 per cent of annual volume (statistics quoted in Exhibit 5). He felt that since bad debt expense was, perhaps, a normal or regular expense, it should be charged against income in some proportion to income, such as annual volume. This would make the expense charge something like an insurance premium. As he envisaged it, the fixed percentage would be credited to the Reserve for Losses each year. All bad debts, however defined, would be charged against the reserve as before. The balance remaining in the reserve account from time to time would simply represent an estimate of the losses yet to be incurred on the existing account receivable. Mr. Martley pointed out that this system would do away with the fixed 0.85 per cent reserve at each statement date. Furthermore, he calculated that, had his system been started in 1955 and continued through 1959, the total amount charged as expense in the five years would have been $1,677,500 as against an actual $1,748,000 charged off through the Provision for Losses over that period. This, he said, indicated that his suggested percentage was an accurate measure of the average expense ratio.

Mr. Morrison thought that the idea suggested by Mr. Martley might have some merit, but he was not quite sure if the principle was sound. He felt, however, that Mr. Martley's proposal neglected what might well be the major problem inherent in the present policy, namely, the rigorous application of the principle of write-off. Admittedly, this would be a conservative policy, but might it be too conservative? Did it result in a distortion of reported income? For example, Mr. Morrison called to mind the situation caused by an abnormally large slow-pay account that was written off near the end of the 1958 financial year. A full write-off had been recorded on an account of nearly $150,000 that had fallen more than six months past due. As it turned out, payment was received in full early in 1959, but after the 1958 financial accounts had been prepared. This, plus an abnormally high rate of recovery on other slow-pay accounts, had produced the abnormal credit figure on net slow-pay write-offs in 1959 (Exhibit 3), contrasting with the extra large debit the previous year. Surely, Mr. Morrison thought, something ought to be done to prevent such a situation arising again. He noted wryly that had the write-off and recovery both occurred within the same financial year, there would have been none of the unfortunate distortion that arose.

Required

1. Prepare the journal entries required to record all transactions on the Reserve for Losses and Provision for Losses accounts for 1958 and 1959.
2. What were the year-end balances of trade accounts receivable each year from 1955 through 1958?
3. Calculate the effect on net income, had Mr. Morrison been able to forecast with a high degree of accuracy the following year's recoveries of each year's credit department write-offs from 1955 to 1958.
4. Should Industrial Factors maintain its present write-off policies? If not, what policies would you recommend be adopted?
5. Would you, as Mr. Morrison, recommend any change in the principle of a balance sheet "valuation reserve" of 0.85 per cent of accounts receivable? What function does such a reserve serve? Is there any merit in the concept of a reserve determined as this one was determined?

EXHIBIT 1

Balance Sheet at December 31, 1959

Current assets:		
Cash		$ 2,573,000
Accounts receivable and loans		
Trade accounts	$37,336,000	
Advances to clients	8,364,000	
	$45,700,000	
Less reserves for losses	384,000	45,316,000
Total current assets		$47,889,000
Deferred charges and prepayments		7,000
		$47,897,000
Current liabilities:		
Accounts payable		$ 2,473,000
Federal income taxes		453,000
Clients' credit balances		23,012,000
Notes payable to bank		5,815,000
Total current liabilities		$31,753,000
Long-term debt		6,000,000
Deferred income		275,000
Capital stock and surplus		
Common stock, $10 par	$ 2,000,000	
Paid-in surplus	2,500,000	
Earned surplus	5,369,000	
		9,869,000
		$47,897,000

EXHIBIT 2

Income Statement* for the Year Ended December 31, 1959 ($000)

Commission	$3,200
Interest received	2,400
Gross income	$5,600
Salaries	$1,040
Other operating expenses	670
Interest paid	1,123
Provision for losses	17
Total expenses	$2,850
Net income, before taxes	$2,750
Federal and State income taxes	1,540
Net income, after taxes	$1,210

*The actual expense detail shown above was supplied by Industrial Factors, Inc., for the purpose of showing the relative importance of different headings. In its published financial statements the corporation gave no expense details other than "interest paid" and "all other expenses."

EXHIBIT 3

Analysis of "Provision for Losses" (Expense Account) 1955 to 1959
($000)

	1959	1958	1957	1956	1955
Slow-pay*	$(231)	$198	$ 37	$ †	$ †
Credit department‡	229	287	323	185	81
Year-end§	26	5	11	62	9
Loan write-offs	(7)	167	198	86	82
	$ 17	$657	$569	$333	$172

*Net amount credited or (debited) to Reserve for Losses, to make good amounts charged to the Reserve for slow-pay accounts.

† Included in "Credit Department" through 1956—not available as a separate item.

‡ Net Credit Department write-offs for the year; see Exhibit 4.

§ Amount required to bring Reserve for Losses up to 0.85% of year-end total of Trade Accounts Receivable.

EXHIBIT 4

Analysis of Net Credit Department Write-offs, 1955 to 1959
($000)

	1959	1958	1957	1956	1955
Write-offs	$374	$432	$427	$276	$209
Recoveries					
Current year	$ 88	$ 78	$ 6	$ 37	n.a.
Previous year	43	54	80	46	n.a.
Prior years	14	13	18	8	n.a.
	$145	$145	$104	$ 91	$128
Net write-offs	$229	$287	$323	$185	$ 81

EXHIBIT 5

Annual Volume, 1955 to 1959*

1959	$327,000,000
1958	274,000,000
1957	271,000,000
1956	256,000,000
1955	214,000,000

*As the words are used in the factoring business, "Annual Volume" means the face amount of trade receivables acquired.

CASE 18

Charles Crowne Company

At a meeting on January 16, 1958, of the three officers of the Charles Crowne Company, a general construction firm located in a large Midwestern city, Mr. John Crowne, vice president and treasurer, raised a question concerning the method the company should use in recording profits on its construction contracts. He remarked that during a recent conversation he had been told by the treasurer and office manager of a building supply firm that a construction company could report its profits either on a percentage-of-dollar-completion or on a job-completion basis and that each method could have a material effect on a company's net income and financial statements. John Crowne's statement puzzled the other two officers who asked for a detailed explanation of the alternatives. In reply, John Crowne stated that he could not explain the percentage method or its significance, because time pressure had prevented him from questioning his friend about the methods. He added that he was certain that the company was currently following the job-completion method of recording profit or loss on contracts only at the completion of the contracts.

John noted that the company's financial statements were furnished to architects and bonding companies, who used them as a means of appraising a contractor's ability to perform a contract he was bidding on. In view of the way in which the statements were used, all officers agreed they should be aware of the available alternatives because the use of various methods might influence the company's success in obtaining contracts from architects and gaining coverage from bonding companies.

The officers became concerned with the tax accounting aspects of available alternatives and also wondered whether different methods could be used for tax and financial accounting purposes. Another factor mentioned was the future prosperity of the Charles Crowne Company and the construction industry in general. Although over the long run the officers expected to expand the volume of company business, the prospects for 1958 did not appear too favorable. As a final consideration, John Crowne noted that the company would soon have to furnish financial statements with its request to the Second National Bank for financial assistance for a proposed office and storage building that would be constructed in the spring of the current year. John wondered whether the company's bank credit standing would be influenced by a change in accounting methods.

At the conclusion of the meeting, John Crowne agreed to question his friend about the available alternatives in detail, to review their application to the Charles Crowne Company, and then to submit his recommendation to the other two officers.

COMPANY BACKGROUND

In 1926, Mr. Charles Crowne founded his own masonry contracting firm as a single proprietorship employing a crew of five men. Although the firm grew slowly up to 1951, Mr. Crowne had restricted the company's operations to the masonry business. In 1951, Mr. Crowne's son John joined the firm after obtaining a degree in architectural engineering. Shortly thereafter, the company started a gradual move into the general construction field. By 1956, the firm was engaged almost entirely as a general contractor, devoting its major effort to institutional projects such as garages, churches, and fire stations.

In bidding on projects as a general contractor, the Charles Crowne Company usually compiled estimates of the cost to complete a project, adding to these costs a percentage for overhead and profit. A large part of the estimates would be based on the bids of subcontractors for special portions of a job. The general contractor would then compile the total estimate for the project and submit a bid. If the contract was obtained, the contractor would then award subcontracts to those subcontractors who had submitted the lowest bid for portions of the project. The contracts received were almost always of a fixed-price nature.

On January 1, 1957, the company was incorporated with Mr. Charles Crowne, president, holding 60 per cent of the common stock; John Crowne, vice president and treasurer, holding 30 per cent; and Larry Shane, who was not related to the Crownes, owning 10 per cent and holding the position of secretary and office manager.

Although the company acted as general contractor on all projects in which it was engaged, it continued to perform all masonry work on its contracts. In addition, the company employed a force of carpenters on company jobs to handle all rough carpentry work and also to assist in supervision of company-employed laborers and the subcontractors. Most work on company projects was performed by subcontractors.

Mr. Charles Crowne frequently acted as the general superintendent on the most important company jobs, while John Crowne traveled between all other job sites to carry out general supervision and to check on work progress and performance. Mr. Shane handled all office work, including the compilation of estimates and proposals for new contracts. Each evening the officers met to discuss the status of jobs and future plans of the company.

RESULTS OF 1957

Because of the high volume of institutional construction activity, 1957 was a record year for the Charles Crowne Company. The sales value of contracts completed in 1957, according to preliminary figures, was $1,143,303.06, as compared with the previous high in 1953 of $819,348.76. Net profit before taxes and officers' compensation in 1957 was estimated at $106,113.74; on a comparable basis $62,809.12 had been earned in 1956 (see Exhibits 1, 2, 3, 5).

The status report of contracts in process (see Exhibit 6) as of December 31, 1957, showed that three contracts having a total value of $464,464 were in various stages of completion. A total cost of $190,816.52 had been incurred to date on these contracts. Of these three contracts, two were for fire stations and one for a municipal garage. All three of these contracts had been started after August 1957 and were estimated to be completed in the spring or early summer of 1958. No revenue or costs on these contracts had been recorded in the income statement for 1957.

OUTLOOK FOR 1958

The officers of the company felt that the construction outlook for their area was not too bright. Over-all construction activity seemed likely to be high, but the officers believed that profit margins would fall. Increasing competition in the field of institutional construction was expected because a downturn in residential building was forcing residential contractors into the institutional field. As a result, the company had lowered its provision for general overhead and profit in recent bids for new contracts to approximately 10 per cent of the contract sales value. In the past, it had been company practice to include a profit of 10 per cent plus a provision for general and administrative overhead of 5 per cent in its proposals. Although the officers realized that it was possible that the company might register losses on one or more contracts as a result of bidding at a lower figure than normal, they felt that the losses, if incurred, would be small; they hoped that, in the aggregate, volume would tend to wash out any individual loss and give the company a fair profit. Company records showed that where losses had been incurred on contracts in the past, they had never exceeded 11 per cent of the contract value.

Company officers expected to submit bids in 1958 on projects that were similar in nature to projects in progress or recently completed. As of January 8, 1958, the company had no backlog of contracts on which it had not started work. Activity in the granting of contracts was usually low in January and February but customarily picked up in March.

It was not the present intention of company officers to try to obtain contracts for projects having an individual value in excess of $400,000. There were several reasons for this policy. First was the fact that officers desired to spread risks over a number of contracts. Second was a consideration of keeping the company name before the architects in the area. Architects generally acted as agents for project owners and were usually responsible for examining the reliability of contractors who were bidding on a project. Contractors who were unknown or not considered reliable usually had their bids eliminated from further consideration. The officers of the company recalled that it had taken several years to acquaint architects in their area with the company name and its ability to perform a job. If they committed the company to one or two large long-term contracts, the officers believed they would effectively remove the name of the company from the sight of architects for a considerable period of time. They were unwilling to do this because they felt that they would have difficulty in re-establishing the company with architects when the long-term contracts were completed.

A third reason for not seeking contracts over $400,000 concerned the very important role of the bonding companies. Charles Crowne Company, like every other contractor, was usually required to post certain bonds with the architect (or the project owner); such bonds postulated that the company would complete the contract according to specifications. Frequently, a clause was included in contracts which specified that the contractor would pay a penalty if the project were not completed by a given date. Nonfulfillment of the stated provisions could result in the forfeiture of the bond and a consequent payment by the bonding company in the stipulated amount of the coverage to the architect and project owner. In order to prevent contractors from overextending themselves, the bonding companies imposed a maximum limit on the contracts that any contractor could have outstanding at any one time. The bonding companies would not provide a bond on a contract if, as a result of taking on this contract, the total sales value of outstanding contracts exceeded ten times the contractor's net worth. Thus, with the Charles Crowne Company's net worth as of December 31, 1957, of $123,080.52, total contracts of $1,230,800 could be handled at the present time. Therefore, by taking on contracts having a value over $400,000, the officers believed the company would be restricted in satisfying the first and second considerations outlined above. Even if the ratio should be suddenly increased, thereby allowing the company to expand its work, there would be further problems of obtaining a capable work force and acquiring the necessary equipment.

ACCOUNTING PROCESS

(a) *Recording of Costs.* The company's accounting system was not complex and was capable of being handled on a part-time basis by an outside accountant. This accountant worked two nights a week at the company offices updating the cost and general ledgers, the general journal, and handling other necessary accounting work. The accountant's main job was to keep accurate records of the costs incurred for each job or contract. Separate subledgers for each contract were kept to facilitate this work.

As job costs were incurred by the company, they were posted or charged to the appropriate job or contract ledger after being recorded in the general journal. A voucher was also made out recording the supplier's or subcontractor's name and address along with the amount payable and filed as a liability. Charges for company-employed labor were recorded at the job site and forwarded to the office. The recording specified for each man the hours worked, his rate, and the nature of the work performed. These recordings, along with being posted to the appropriate jobs, were also used as the basis for computing payrolls. The total of the balances in the job ledger accounts was the company's "work in process."

The job cost accounts tended to be the same for each job, with the following typically used major classifications:

1. *Subcontracts:* Separate subaccounts were maintained for each subcontract. For instance, on Job #220, a fire station under construction, there were over twenty subcontracts for various portions of the total job. A list of the subcontract accounts on Job #220 is provided in Exhibit 4.

   (The following accounts recorded *company* incurred job costs.)
2. *Masonry:* Separate job accounts were kept for company masonry labor and company-purchased masonry materials.

3. *Carpentry:* Same as for masonry.
4. *Special Projects:* Separate project accounts were provided when unusual portions of a contract were to be completed by the company. For instance, in completing Job #220, the company was to install the slide poles to be used in the fire station, and also erect a flag pole. Costs incurred for these purposes would be charged to special slide pole and flag pole accounts.
5. *Supervision:* Used to record the supervisory costs for each job.
6. *Performance Bond and Insurance:* Used to record the bonding charges and insurance required for each job.
7. *General Conditions:* Separate account for each job; used to include all job costs not charged to other accounts. The account contained such items as the cost of the construction shack, telephone and other utilities, general office supplies, wages of timekeeper and watchman (if necessary), and the wages of laborers that could not be easily separated into other accounts. This account did not include any of the company's general and administrative expenses which were not allocated to the jobs.

(b) *Billing.* On contracts in process, the Charles Crowne Company usually submitted a monthly "Application for Payment" to the architect who represented the project owner. Exhibit 7 shows the detail provided on the "application." The items marked with an asterisk are for company portions of the job, whereas the remainder are for subcontracted sections of the job.

Several steps were involved in determining the amount billed by the contractor. First, an officer of the company estimated the physical percentage of completion of each major portion of the contract. Thus, in the case of the masonry item on Exhibit 7, it was estimated that masonry work was 90 per cent complete at the end of the month. Because masonry had been estimated at 78 per cent of completion at the close of the prior month, then 12 per cent of the $51,200 value attached to masonry, or $6,120, was deemed to be the gross amount that should be billed for the current month. Noteworthy is the fact that costs incurred to date as a percentage of total estimated costs did not determine the percentage of completion. Thus, the gross billing of $6,120 for the current month could be either equal to, less than, or greater than the actual costs incurred in the month, plus the allowances for profit and overhead that were predicted in bidding the job.

As in the case of masonry, a similar estimating procedure was followed on the other items of the job. The items were then summed to obtain the gross billing for the current month. From this total gross billing an amount called "retainage," agreed to in the contract as 10 per cent of the gross billing, was deducted to obtain the net billing due the contractor.

The application was then forwarded to the architect who had the job of verifying the percentage of physical completion claimed by the contractor. If the architect considered the percentage billed as valid, he certified the application and requested on a separate form that the project owner forward the net billing to the contractor. The contractor usually received his progress payment within fifteen days after the date of billing.

(c) *Recording of Income.* As mentioned above, the company used the completed-contract method in recording income from contracts. Under this system, the profit or loss on a contract was not booked until the contract was completed and accepted by the project owner.

The company recorded the billings, net of retainage, with the following entry:

dr. Accounts Receivable— Job #220
cr. WIP— Job #220

Using this method, the work in process account for Job #220 had a credit balance as of December 31, 1957, which represented billings (net of retainage) in excess of costs.

When the contractor received payment, the following entry was made:

dr. Cash
cr. A/R—Job #220

At the final billing of a contract, the company billed the owner for all retainage using the same entry as the first.

dr. Accounts Receivable— Job #220
cr. Work-In-Process— Job #220

When the contract was complete, the credit balance in the work-in-process account was the profit on the contract. This amount was closed out to profit and loss as follows:

dr. Work-In-Process— Job #220
cr. Profit on— Job #220

APPENDIX

The Federal income tax regulations pertaining to the methods allowable in determining contractor's profits are found in Treasury Regulation 1.451-3, which states that a contract must be outstanding more than twelve months in order to qualify as a long-term contract. If the contract qualifies as to time length, then the contractor may employ either the percentage or completed-contract method, again provided he is consistent in his treatment. Thus, under the law, contracts of shorter duration than one year could not have their profits determined under either of these methods. However, there is wide precedent in court cases where the completed contract method has been employed on contracts lasting over a period considerably *less* than one year. Of course, the importance of this fact arises only in cases where more than one accounting period is involved. To date, no exception to the twelve-month period stated in the regulations exists for the percentage method. Several legal authorities have argued that contractors should be allowed to use the percentage method when a contract involves at least two accounting periods.

EXHIBIT 1 Income Statement for Year Ended December 31, 1957

Sales value of completed contracts		$1,143,303.06
Cost of contracts completed		1,026,112.10
Gross income from contracts		$ 117,190.96
Add: Discounts earned		$ 10,832.66
		$ 128,023.62
Less:		
General and administrative expense	$21,909.88	
Officers compensation	69,140.00	91,049.88
Net income before tax		$ 36,973.74
Federal taxes		13,893.22
Net income		$ 23,080.52

EXHIBIT 2 Sales and Income—1951-1956

Year	Sales Value of Contracts Completed	Gross Income from Contracts (including Discounts Earned)	Profit Before* Officers Compensation and Tax
1956	$661,384.74	$87,565.50	$62,809.12
1955	340,381.42	38,199.54	24,589.42
1954	581,220.50	49,487.42	32,562.96†
1953	819,348.76	77,423.84	59,475.38
1952	548,424.04	77,799.12	61,713.66
1951	481,302.08	63,071.82	52,816.34

*During the years 1951-1956, the company was operated as a partnership.

†In 1954, the company suffered a loss of $6,921.26 on a contract having a value of $63,628. This was the largest loss incurred in recent years.

EXHIBIT 3 Contracts Completed in 1957

Contracts	Costs	Profit
$ 9,061.10	$ 7,390.38	$ 1,670.72
6,970.00	6,566.60	403.40
82,493.66	72,055.38	10,438.28
23,652.00	24,136.52	(484.52)
6,114.00	4,838.70	1,275.30
23,569.00	22,141.30	1,427.70
147,164.00	141,677.58	5,486.42
45,823.84	41,250.24	4,573.60
58,011.66	53,530.28	4,481.38
362,522.40	320,875.78	41,646.62
33,600.00	32,705.52	894.48
43,702.00	37,265.74	6,436.26
27,731.08	25,872.30	1,858.78
3,801,30	3,110.62	690.68
90,199.76	78,103.42	12,096.34
55,314.00	47,195.98	8,118.02
14,070.00	13,556.50	513.50
37,598.00	29,630.64	7,967.36
30,206.06	28,995.40	1,210.66
41,699.20	35,213.22	6,485.98
$1,143,303.06	$1,026,112.10	$117,190.96

EXHIBIT 4 List of Subcontracts on Job #220

1. Site work
2. Concrete work
3. Precast concrete panels
4. Aluminum sash
5. Sash erection
6. Structural steel
7. Glass & glazing
8. Finish hardware
9. Modern fold door
10. Roofing & sheet metal
11. Overhead doors
12. Hollow metal work
13. Resilient floor & base
14. Hard tile
15. Acoustical work
16. Asphalt paving
17. Plastering
18. Painting
19. Toilet partitions
20. Curtain wall panels

EXHIBIT 5

Balance Sheet as of December 31, 1957

ASSETS

Current Assets

Cash in bank		$ 74,317.34
Cash on hand		100.00
Accounts receivable		61,715.04
Work in process		77,375.74
Deposit accounts		2,341.86
Notes receivable		11,918.78
		$227,768.76

Fixed Assets

Trucks, tools, & equipment office furniture	$12,922.98	
Less: Reserve for depreciation	2,090.66	
		10,832.32
TOTAL ASSETS		$238,601.08

LIABILITIES

Current Liabilities

Accounts payable—Trade		$ 75,426.66
Accounts payable—Misc.		3,503.24
Accrued taxes		12,531.66
Accrued insurance		2,079.00
Accrued management compensation		21,980.00
		$115,520.56

Stockholders

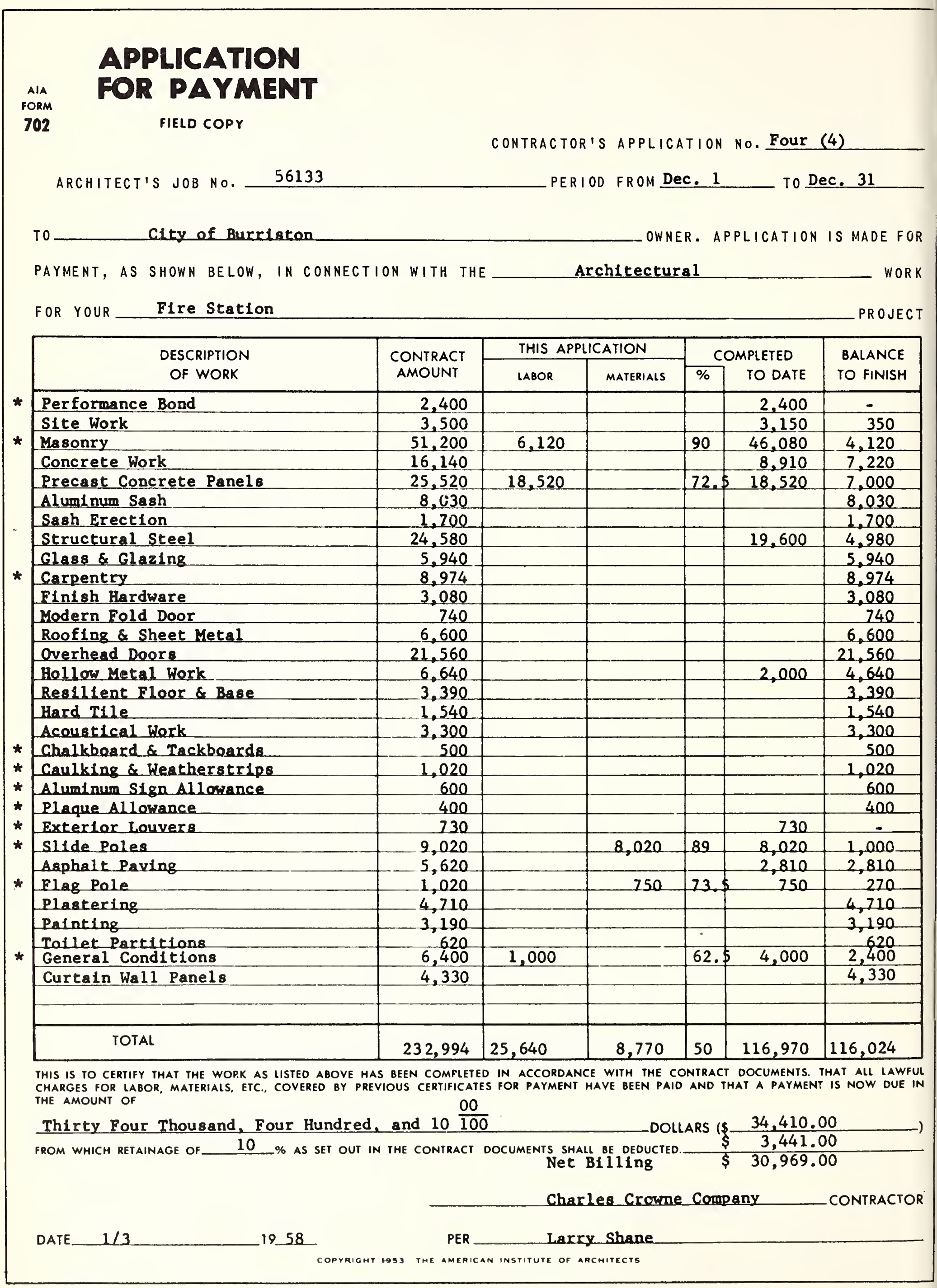
Stock	$100,000.00	
Retained income	23,080.52	123,080.52
TOTAL LIABILITIES AND CAPITAL		$238,601.08

EXHIBIT 6

Status Report of Contracts

Project	Amount of Contract	Gross Billing 12/31/57	Retainage 10%	Net Billings Rendered 12/31/57	Net Billings Collected 12/31/57	Costs to 12/31/57	Cost, Estimated to Complete
#220 Fire Station	$232,294.00	$116,970.00	$11,697.00	$105,273.00	$ 65,446.66	$102,751.50	$106,230
#221 Municipal Garage	110,220.00	90,780.00	9,078.00	81,702.00	47,602.00	76,578.18	9,040
#224 Fire Station	121,950.00	12,250.00	1,250.00	11,025.00	392.12	11,486.84	100,250
	$464,464.00	$220,000.00	$22,000.00	$198.000.00	$113,440.78	$190,816.52	$215,520

EXHIBIT 7



AIA FORM 702

APPLICATION FOR PAYMENT

FIELD COPY

CONTRACTOR'S APPLICATION No. Four (4)

ARCHITECT'S JOB No. 56133 PERIOD FROM Dec. 1 TO Dec. 31

TO City of Burriston OWNER. APPLICATION IS MADE FOR PAYMENT, AS SHOWN BELOW, IN CONNECTION WITH THE Architectural WORK FOR YOUR Fire Station PROJECT

	DESCRIPTION OF WORK	CONTRACT AMOUNT	THIS APPLICATION		COMPLETED		BALANCE TO FINISH
			LABOR	MATERIALS	%	TO DATE	
*	Performance Bond	2,400				2,400	-
	Site Work	3,500				3,150	350
*	Masonry	51,200	6,120		90	46,080	4,120
	Concrete Work	16,140				8,910	7,220
	Precast Concrete Panels	25,520	18,520		72.5	18,520	7,000
	Aluminum Sash	8,030					8,030
	Sash Erection	1,700					1,700
	Structural Steel	24,580				19,600	4,980
	Glass & Glazing	5,940					5,940
*	Carpentry	8,974					8,974
	Finish Hardware	3,080					3,080
	Modern Fold Door	740					740
	Roofing & Sheet Metal	6,600					6,600
	Overhead Doors	21,560					21,560
	Hollow Metal Work	6,640				2,000	4,640
	Resilient Floor & Base	3,390					3,390
	Hard Tile	1,540					1,540
	Acoustical Work	3,300					3,300
*	Chalkboard & Tackboards	500					500
*	Caulking & Weatherstrips	1,020					1,020
*	Aluminum Sign Allowance	600					600
*	Plaque Allowance	400					400
*	Exterior Louvers	730				730	-
*	Slide Poles	9,020		8,020	89	8,020	1,000
	Asphalt Paving	5,620				2,810	2,810
*	Flag Pole	1,020		750	73.5	750	270
	Plastering	4,710					4,710
	Painting	3,190					3,190
	Toilet Partitions	620					620
*	General Conditions	6,400	1,000		62.5	4,000	2,400
	Curtain Wall Panels	4,330					4,330
	TOTAL	232,994	25,640	8,770	50	116,970	116,024

THIS IS TO CERTIFY THAT THE WORK AS LISTED ABOVE HAS BEEN COMPLETED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THAT ALL LAWFUL CHARGES FOR LABOR, MATERIALS, ETC., COVERED BY PREVIOUS CERTIFICATES FOR PAYMENT HAVE BEEN PAID AND THAT A PAYMENT IS NOW DUE IN THE AMOUNT OF

Thirty Four Thousand, Four Hundred, and 10 $\frac{00}{100}$ DOLLARS ($ 34,410.00)

FROM WHICH RETAINAGE OF 10 % AS SET OUT IN THE CONTRACT DOCUMENTS SHALL BE DEDUCTED. $ 3,441.00

Net Billing $ 30,969.00

Charles Crowne Company CONTRACTOR

DATE 1/3 19 58 PER Larry Shane

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CASE 19

Golden Stores, Inc.

In December 1960, Mr. James Voss, the treasurer of Golden Stores, Inc., was considering whether the company ought to extend to its 1960 published financial accounts a change in policy (recently instituted for tax purposes), despite the strong opposition of Mr. William Robinson, the controller. The company had just completed arrangements for converting its tax accounting to the installment basis for the bulk of its accounts receivable; the question before Mr. Voss was whether the company should carry the change through to the Balance Sheet. The tax arrangement itself is described in more detail below; briefly, it involved the sale of all receivables to a banking syndicate for cash, and an immediate change in tax-accounting policy for all installment sales made after the conversion date.

HISTORY

Golden Stores, Inc., operated a chain of department and mail-order stores in the western United States. The chain had experienced a large expansion in recent years, through the opening of new stores and the continuing increase in the area's retail sales. Its financial condition was sound (see Exhibits 1 and 2 for Balance Sheet and comparative Income

Statement data [1]). The past few years, however, had seen the growing entrenchment of liberal credit terms as a sales tool; 1959 had seen the company's credit sales reach 50 per cent of its total sales. This trend, although by no means new, had important implications from the point of view of the company's finances and accounting.

CREDIT SALES

Exhibit 2 indicates that credit sales increased from 41 per cent of $165 million in 1955 to 50 per cent of $202 million in 1959, or from $67.65 million to $101 million. In other words, substantially all the sales increase in the past five years had been additional credit sales. Mr. Voss was perfectly aware of this trend. The company had, in fact, been stressing its credit facilities in order to win new sales, and would continue to do so in the future, bearing out the swing to consumer credit in the retail world.

As treasurer, Mr. Voss was also very much aware of the effect that the company's expanding credit volume had on its financial needs. He pointed out that the company's receivables averaged eight months or more credit sales, and that the period was increasing annually. Obviously, this created a major need for financing to carry receivables.

Two "long-term" credit plans were offered by Golden Stores to its customers. Almost all credit customers used one of these two plans; the volume of monthly-account sales was very small because customers usually preferred either to pay cash at the time of sale or to finance their purchases over a period of some months.

The most popular plan was based on a regular installment agreement on some specific purchases. Customers would make a down payment on the articles they selected, and pay off the balance plus finance charges over an agreed period of time.[2] Most of the sales under this plan were so-called "big-ticket" items, such as household appliances and furniture, where single purchases would be made for large dollar amounts.

In recent years, however, Golden Stores had also offered customers with proven credit worthiness the opportunity to finance their purchases of smaller items, particularly clothing, under a revolving credit plan. Under this plan, approved customers were permitted a monthly maximum purchase on credit. At the same time, they made a monthly payment in reduction of the unpaid balance on their account, the payment being calculated (usually) as one-twelfth of the total balance. In this way, one year's credit was allowed, and customers could reutilize the credit granted to them as they paid off their account. A small finance charge was added to the monthly balance, usually 1 per cent.

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[1] 1959 was the last year for which complete financial information was available.

[2] The "add-on" for finance charges was 12½ per cent on a year's contract; that is, 8⅓ per cent of the face value of the average account, on the basis of the eight-month average for accounts receivable.

ACCOUNTING IMPLICATIONS

The accounting policies applied to credit sales had been determined when these sales were only a small proportion of Golden Stores' total volume. Normal accrual accounting was used: the sale was entered in the books when made, and accounted for as a complete transaction at that time. In other words, the profit on the sale was recognized when the sale was made. Finance charges, representing a charge by Golden Stores for the capital tied up in a customer's account and for the expenses that it would incur in servicing the account, were taken into income on a time basis, according to the monthly balances on accounts receivable. Only the installment plan purchases carried a "pre-paid" finance charge, and this charge was deferred for balance sheet purposes as a valuation reserve deducted from accounts receivable. Revolving credit charges were assessed monthly, and there was accordingly no need for any deferral of these charges.

During 1960, as a continuing rise in credit volume was sustained, it had become apparent to the company's management that their present policies, in effect, produced two possibly unfortunate results. First, immediate recognition of the profit on credit sales meant that income taxes had also to be provided for, and therefore, paid out, often before a major part of the sales price was received in cash. Second, immediate recognition of profit on credit sales meant that the company's financial statements indicated a source of funds from profits that was, in a considerable amount, counterbalanced by an application to increased investment in working capital. Both of these results tended to make management's task more difficult: the first, because of the cash drain, and the second, because of the misleading source of funds that was being indicated.

CHANGE FOR TAX PURPOSES

During 1959, Golden Stores' tax consultants pointed out to the company's management that it would be possible for the company to defer paying income taxes on the profit from its installment sales until the actual cash was received. The Internal Revenue Service permitted companies such as Golden Stores to prorate the gross profit on such sales over the period in which payment was received (Regulation #1.453-1), by application of the gross profit percentage only to those payments actually received (in effect, by deferring the gross profit on receivables still outstanding). This was known as the "installment method" of accounting. However, the tax authorities required a complete switch-over to this basis if a taxpayer proposed to adopt it. Furthermore, in order to avoid double taxation in the year following the change-over, it was necessary for the company to realize all its receivables fully at the end of the year before the change-over. When the new system took effect, the gross profit percentage would be applied to all receipts in years following the change-over, even though tax had already been paid on the profits "included" in receivables from past sales and recognized when the respective sales were made. (The provisions for tax relief were not regarded as sufficient to avoid some element of double taxation, so that the complete-sale concept was the only sure way of avoiding any possibility of this penalty.)

This scheme appeared to be most attractive to Golden Stores' management, as it would certainly permit deferral of income taxes on installment sales income not yet realized in cash. Some confusion existed as to the inclusion of revolving-credit plans under this regulation; the IRS refused to agree that a similar treatment was permissible until the matter had been adjudged by the Superior courts. However, it was expected that revolving-credit plans would, in time, be included under this regulation, so that all income on long-term credit sales could be deferred for tax purposes.

In the meantime, the prospect of deferring at least some income taxes was attractive enough to the company. Arrangements were made for a group of commercial banks to purchase all Golden Stores' receivables as of the end of the latter's 1960 financial year. In this way, the company realized, in cash, all the sales it had made up to December 31, 1960, paid income taxes on these sales in 1960, and was free to elect the installment basis of accounting for tax purposes beginning January 1, 1961—which it did.

CONTROLLER'S VIEWPOINT

There was, of course, no obligation on the company to use the installment basis of accounting in its regular financial accounts. As a matter of fact, Mr. William Robinson, the company's controller, had expressed himself as being strongly opposed to any change in the regular accounting basis, previously described. Mr. Robinson stated as his opinion that changes made for tax accounting had no relevance as far as the company's reported profits were concerned, other than the necessary recognition of tax deferrals. He felt that any change would undermine the basis of accrual accounting that had always been used, and would distort the meaning of the "gross profit from sales" concept. Mr. Voss was not at all confident that he could summon up sufficient argument in favor of a change; after hearing Mr. Robinson's point of view, he began to have serious doubts as to the propriety of a change along the lines that he had been considering.

Required

1. Recalculate Golden's net income before taxes for the years 1955-1959, following the policy of deferring recognition of the gross profit on all installment sales made from January 1, 1955. Assuming a 50 per cent income tax rate, how valuable would this change in policy have been to Golden if it had been adopted on January 1, 1955?
2. What factors should Mr. Voss consider in his decision regarding deferred income for regular corporate reporting? Should he differentiate between income presently deferrable for tax purposes (installment sales) and that not deferrable (revolving-credit plan)? Do you think that all retail businesses should use the installment method of recognizing gross profit? Why? Do you think Golden should adopt this method for reporting to its stockholders?

EXHIBIT 1

Consolidated Balance Sheet at December 31, 1959
(All Amounts in Thousands)

Current Assets		
Cash and U.S. treasury bills		$ 10,755
Accounts receivable (less $5,900 reserve*)		68,540
Inventories, at lower of cost and market		35,278
Prepayments		1,434
Total Current Assets		$116,007
Investments, at or below cost		10,671
Property, plant and equipment: cost	$28,278	
less: depreciation	12,474	
Net		15,804
Debenture discount		169
Total Assets		$142,651
Current Liabilities		
Accounts payable		$ 5,118
Accrued expenses		4,638
Federal income taxes		7,355
Other taxes payable		3,694
Short term notes payable		30,217
Total Current Liabilities		$ 51,022
5% debentures, 1996		17,500
Stockholders' Equity		
Capital stock—$1.00 par value	$11,250	
Paid-in surplus	3,420	
Retained earnings	59,459	
Total Stockholders' Equity		74,129
		$142,651

*Comprising deferred finance charges on installment accounts and a provision for bad and doubtful debts.

EXHIBIT 2

Comparative Income Statement Data, 1955 to 1959

	1959	1958	1957	1956	1955
($'000,000)					
Net sales	$202	$186	$180	$178	$165
Net income before taxes	20.2	16.9	16.7	17.2	16.7
Year-end receivables (net) (see Exhibit 3)	68.5	58.7	54.0	50.4	44.4
(Percentages)					
Realized gross margin*	36.0%	35.3%	35.4%	35.8%	36.0%
Credit sales/total sales	50	47	46	44	41
Installment plan	37	38	39	38	37
Revolving credit	13	9	7	6	4

*Gross margin (sales, less cost of goods sold), expressed as a percentage of net sales.

EXHIBIT 3

Accounts Receivable Data, 1955 to 1959 (December 31)

	1959	1958	1957	1956	1955
($'000,000)					
Installment accounts	$59.2	$54.7	$51.2	$48.0	$42.6
Revolving charge accounts	12.8	6.6	4.8	4.0	2.5
Miscellaneous accounts	2.4	2.9	3.0	3.1	3.6
	$74.4	$64.2	$59.0	$55.1	$48.7
Less: Reserve*	5.9	5.5	5.0	4.7	4.3
Net Total	$68.5	$58.7	$54.0	$50.4	$44.4

*See note to Balance Sheet.

INVENTORY VALUATION—DETERMINATION OF COST OF GOODS SOLD

CASE 20

R. H. Shay Motor Company, Inc.

In mid-February 1961, Mr. David Whittlesey, a student attending a business school, contacted the Shay Motor Company in his search for a used automobile. He had received a check for $600 from his parents for Christmas, but did not have the time to search for a suitable car until the first semester had ended. He found a 1956 Ford Fairlane sports sedan at Shay's, but did not feel it was worth the asking price of $750. When he offered Mr. Shay $600 for the car, he was very much surprised at his reply that, "The automobile business is terrible! I've only been in business one month, and I'll be very lucky if I'm here next month. Do you know that I lost nearly $25,000 last month? I should have kept my job as manager of the automotive department at Starr Burnham and Company and never put my life savings into this darn automobile business. I can't sell you that car for $600 and make any money; in fact, I'd lose money on a deal like that."

That evening, after discussing Mr. Shay's comments with several of his friends, Mr. Whittlesey decided that Mr. Shay's situation might serve as the subject material for a required report in one of his courses. Subsequently, he contacted Mr. Shay who agreed to give Mr. Whittlesey the required information in return for his advice based on his report findings.

COMPANY HISTORY

Mr. Shay had been manager of the automotive department at a near-by retail store of Starr Burnham and Company since 1945 but was not satisfied with this position because he had always wanted to own and manage his own business. He had kept his eyes open for a potential investment opportunity and when he found that Bert Motor Company was for sale, he decided to purchase the business. In late December 1960, a purchase price of $125,000 was agreed upon, of which $85,000 was to be paid to Bert's as of the date of sale. The balance was to be paid annually at the rate of 10 per cent of reported annual profits. This balance ($40,000) carried a 4 per cent interest rate, payable semiannually. Mr. Shay was able to assemble the required $85,000 by drawing on three sources. First, he invested $40,000 of his own personal savings; second, he obtained $25,000 from his father on a 3 per cent note; and finally, he borrowed the remaining $20,000 from the Community National Bank under a 5 per cent loan which was secured by the new car inventory. Mr. Shay listed the assets he had purchased from Bert Motor Company as of January 1, 1960, as follows:

Accounts Receivable	
From sale of repair parts and mechanical servicing to customer's cars	$ 15,400
Advertising Brochures and Literature	
Relative to 1961 model cars	1,700
Ford Dealer Franchise	25,000
Leasehold Improvements to Showroom and Service Building	
Mr. Shay obtained a lease agreement on the building for a fifteen-year period. He paid Bert Motor Company for certain improvements which Bert had made to the building, such as restrooms, decoration of the showroom, and installation of certain lighting and advertising signs. Mr. Shay estimated these improvements would last as long as the building or approximately fifty years.	12,860
Mechanical and Office Equipment	
Tools, lifts, air compressors, and other miscellaneous shop and office equipment. It was estimated that the useful life of the equipment was approximately ten years.	14,320
New Cars in Stock	
Mr. Shay purchased a stock of thirteen new cars from Bert Motor Company. These cars had an invoice cost (cost to the dealer, including freight from the nearest port of entry) of $29,826, but were expected to sell at retail (retail list price as suggested by the manufacturer) for $36,126	36,126
Office Supplies Inventory	1,196
Repair Parts, Supplies, and Accessories Inventory	16,813
Used Cars in Stock	
Bert Motor Company had two used cars on hand as of January 1, 1961. The expected retail value of these cars was $2,490, the Blue Book Wholesale Value was $1,585, the loan value was $1,375, and $2,945 had been allowed on those cars when they were traded in on new cars	1,585
Total Assets, Purchased from Bert Motor Company	$125,000

In addition to these assets, Mr. Shay was able to obtain an additional $25,000 from the Community National Bank under a 5 per cent working capital loan secured by the new car inventory and the accounts receivable. The bank stipulated that the total loan of $45,000 was to be reduced at the rate of $500 per month, whereas interest was payable annually. With these assets, Mr. Shay formally announced he was open for business on January 1, 1961.

Bert's was a relatively small, new-car Ford agency located in one of the suburbs of Boston, Massachusetts. The original company had been established in 1920 and had grown rapidly until 1940. However, the agency had never regained much headway subsequent to World War II and after Mr. Bert's death in early 1960, the decision was made to sell the dealership. Bert's had no used-car sales department because all trade-ins had been wholesaled at the auction block for whatever they would bring.

Mr. Shay thought he could run the agency as a profitable venture by selling the trade-ins at retail, rather than wholesaling them, by stressing the quality and dependability of his "selected" used cars, and by stressing the importance of the quality servicing he would provide on any new or used car which he sold. In addition to increasing sales, Mr. Shay felt he could cut down on overhead expenses because he intended not only to act as manager of the agency, but also to serve as new car sales manager; his wife, Sally, would act as office manager and bookkeeper for the agency. She had previous experience as a clerk-typist in the business office of a large manufacturing firm, but she had no accounting experience or training.

OPERATING RESULTS FOR JANUARY

On January 31, 1961, after one month of operation, Mr. Shay and his wife were very anxious to learn if they had operated the business successfully during the month of January. They both felt that business had progressed smoothly in that month, and during a discussion with Mr. Jacobs (former manager of Bert Motor Company) they learned that they had sold more cars this January than Mr. Jacobs had sold in the same month of the preceding year.

They had sold fifteen new cars priced at the manufacturer's suggested retail price of $42,365 and had received $4,305 cash, installment notes receivable of $26,340 (which were immediately sold to Community National Bank for $24,495 cash); twelve used cars on which trade-in allowances of $10,620 had been made, and had given cash discounts of $1,100 on three of the new cars, in exchange for the $42,365 of new cars. The factory invoice cost of the fifteen new cars was $31,145. Mr. Shay's used-car sales manager estimated that the twelve used cars traded in would bring about $8,620 on the retail market but would only bring $6,490 at the wholesale auction block (often referred to as "Blue Book" value) and had a loan value of only $5,300. In addition to the new car sales, six used cars had been sold in January for a cash price of only $5,213 although $6,486 had originally been allowed on the cars at the time they were traded in on new cars.

During the first few days of February, Mrs. Shay worked feverishly preparing a profit and loss statement for the month ending January 31, 1961, but was horrified when she determined that a net loss of $24,467 had been incurred for the month of January (see Exhibit 1). When Mr. Shay saw the statement, he too was shocked and disillusioned for he felt that he and his wife had worked exceptionally hard during the month and should have made money on the sales that had been made.

When Mr. Shay had shown the statement to his used-car sales manager (who was paid a salary of $300 per month plus 10 per cent of the profits on used-car sales), he had been told that this statement, showing a loss of $1,273 on used cars, did not reflect the profit made on used-car sales and that the statement was a very unfair presentation of the profitability of the used-car operation.

The used-car sales manager's final comment had been, "You're going to lose yourself a good employee if you try to pull a fast one like that on me. You and I both know that the six used cars I sold could have been purchased wholesale at the block for $2,800 or $2,900, and thus the used-car operation would have shown a $2,400 profit for the month. Not only that, but I've heard you comment several times that you'd give a 15 per cent discount on a new-car sale if no trade-in was involved, and that means that the cost of every used car you expect me to sell is inflated by at least 15 per cent. I think you'd better take a good look at the used-car profit calculation!"

At this point, Mr. Shay began to wonder if his decision to purchase the automobile agency had been completely in error and if he might not have been better off by keeping his steady job at Starr Burnham.

Required

1. Prepare a balance sheet as of January 1, 1961, and as of January 31, 1961, for Mr. Shay.
2. Do you think that Mrs. Shay's operating statement correctly presents the profitability of the Shay Motor Company, Inc., for the month of January and if not, how would you change her statement?
3. As Mr. Whittlesey, what comments or suggestions would you make to Mr. Shay about the progress of his business to date?
4. What problem or problems will Mr. Shay face in trying to assess the profitability of the new-car versus the used-car operation?

EXHIBIT 1

Statement of Profit and Loss for the Month Ending January 31, 1961

Income from Sales

Collections on accounts receivable		$ 4,800
Cash sale of repair parts, accessories, and customer servicing. (This did not include sales of $24,670 made in January but which had not been collected prior to January 31, 1961)		18,080
Cash collected on new cars sold in January		4,305
Cash collected on sale of installment notes to Community National Bank		24,495
Used-car sales	$5,213	
Less trade-in value allowed on cars when originally traded in	6,486	(1,273)
Net income for January		$50,407

Operating Expenses

Salaries and wages Salaries and wages were paid weekly. This amount represented net salaries paid by check through the week ending Friday, January 27, 1961. The number of people on the payroll was constant during the month of January. The normal work-week was five and a half days.	$23,315
Insurance, liability, uninsured motorist, fire and theft This premium paid for coverage under a three-year policy contract.	4,850
Advertising supplies, brochures, and pamphlets purchased in January.	685
Hot-topping and construction of used-car sales shack. This was the cost of preparing a vacant lot for use as used-car sales space. The lot had been secured under a five-year lease agreement but the improvements to the lot were estimated to have a twelve-year life.	7,400
Heat, light, and power Was paid on a bimonthly basis. The first billing would not be made until March. The charge for the equivalent two-month period last year was $2,384	0
Real estate and property taxes had been assessed in the amount of $8,232 and were to be paid in equal semiannual installments on June 30 and December 31.	
Sub-Total (Forward)	$36,250

(cont'd)

EXHIBIT 1, cont 'd

Forward	$36,250
Repair parts, supplies, and accessories purchased during the month $10,000 of this amount had not been paid by 1/31/61.	14,589
Federal and State taxes withheld from employees' salaries and wages paid in January. These taxes were remitted to the proper agencies quarterly.	2,800
Purchase of office supplies during January.	435
Mr. Shay's drawings for January.	2,000
New cars purchased from Ford Motor Company (12 cars total invoice cost $28,380, one-half down before delivery, balance due at time of final sale. The suggested retail price on these cars was $36,880.)	14,190
Miscellaneous operating expenses paid in January including loan repayment of $500 to Community National Bank and a home mortgage payment of $210 on Mr. Shay's private residence.	4,610
Total Operating Expenses	$74,874
Net operating loss for January	($24,467)

Supplemental Month End Account Balances

Inventory Accounts

A physical count (valuation at cost) of the various inventory accounts revealed the following balances as of January 31, 1961.

Office supplies	$ 1,332
Repair parts, supplies, and accessories	20,880
Advertising brochures and literature	1,902

Cash Balance as of January 31, 1961

Shown on the bank statement received from Community National Bank, $23,540. However, checks amounting to $3,721 had not been presented to the bank for payment as of the date of this statement.

CASE 21

Showdown at Sunset Pass

In June 1960, the newly formed business enterprise Cine-Mesa, Inc., went "on location" near Laramie, Wyoming, to produce a film entitled *Showdown at Sunset Pass.* The script for the film had been adapted by the author from *It's Dark at the Top of the Pass,* a recent novel about life in the Old West. The book had maintained a high place on the "best seller" list since its publication early in 1959.

Cine-Mesa, Inc., had been organized as a corporation for the express purpose of producing this "adult western" movie. Sixty per cent of the authorized 100,000 shares of no-par common stock was held by the co-stars of the production, Mr. John Bain and Miss Shirley Gibson. Mr. Bain held 35 per cent, and Miss Gibson 25 per cent. Mr. Ian Kalif, the producer-director, held 10 per cent, and the remaining 30,000 shares had been sold at $15 per share to a fairly large number of individual investors who frequently participated in such film enterprises. The $450,000 proceeds from the "publicly held" stock represented the only cash paid into Cine-Mesa by its shareholders. Mr. Bain had agreed to accept responsibility for the additional financial backing and had found no difficulty in securing the funds as needed under loan arrangements.

Although neither John Bain nor Shirley Gibson was known primarily for Western-type films, Mr. Bain was generally regarded as among the ten top current box-office attractions in the United States. Miss Gibson's ranking was not as high, but she was a successful actress whose services were widely sought. In addition to a share of the Corporation's profits from the *Showdown at Sunset Pass* production, each of the co-stars was to draw a salary during the first year. Mr. Bain's salary was to be $100,000, Miss Gibson's $60,000. No additional salaries would be paid to either of them.

The film rights to *It's Dark at the Top of the Pass* and the author's script adaptation had been purchased under an arrangement whereby the author and his publisher would receive either an outright payment of $60,000 plus a 5 per cent of the after-tax profits from the film, or $200,000, whichever was larger. The remaining profits were to be distributed to the Corporation's stockholders according to their share holdings.

In addition to the amounts to be paid the co-stars, there were salaries for the supporting cast, the producer-director, musicians, and the production crew, expected to total about $600,000. It was estimated that travel and other expenses while "on location" would amount to $150,000. There would also be the cost of negative and positive films, wardrobes, props, and accessories totaling $100,000. General administrative and other miscellaneous items of expense were expected to amount to $80,000.

Some of the materials for sets to be used in the film production had been obtained under a rental arrangement from Mr. Kalif, who had previously produced a less elaborate Western at a location about a hundred miles from Laramie. The total cost of $75,000 for renting and moving these sets had already been agreed upon by Mr. Bain and Mr. Kalif. In addition to these costs, Cine-Mesa would probably spend $200,000 for sets. This expenditure might be partially offset by the later sale or rental of the sets in somewhat the same manner that Cine-Mesa had rented old sets from Mr. Kalif.

Cine-Mesa had been approached by Mr. Ted Flannigan, the producer of a Sunday evening variety show which had long attracted wide audiences on one of the major television networks, with a request that he show on his program sometime in December 1960 some of the more gripping excerpts from *Showdown at Sunset Pass*. Mr. Flannigan would visit the set at his own expense and film an interview between him and some of the cast. This interview would be shown on the program just preceding the showing of the excerpts. The expenses incurred by Cine-Mesa in this connection would be hard to isolate and measure, but Mr. Kalif thought they would probably not exceed $5,000 and might be as low as $2,000. Mr. Kalif considered in his estimate the fact that there would be some minor interruptions of the filming and that Cine-Mesa would supply the film excerpts. Mr. Bain had stated that this arrangement together with his and Miss Gibson's planned personal appearances could be worth $100,000 or more to Cine-Mesa.

Most of the costs to be incurred during the life of the Corporation would be the production costs described above and would be incurred during the first year. However, there would be an annual cost of perhaps $50,000 to take care of administrative matters that would arise throughout the life of the Corporation. The Corporation could be dissolved at any time by a vote of two-thirds of the stock. As a practical matter, such dissolution would take place when the expected future revenues, less operating costs, were not sufficient to warrant the continued investment of the funds that could be realized by the sale of the remaining film rights to another party.

Although Cine-Mesa had no full-time financial and accounting officer, the Corporation did have at its disposal the advice and part-time services of Mr. Stanley Corder, a Certified Public Accountant practicing in the Los Angeles area. Mr. Kalif, who had officially accepted responsibility for financial and accounting affairs, had little interest and almost no training or experience in such matters. He made it clear in their first conference that he would depend heavily upon Mr. Corder for advice. He commented, however, that the one man in the Corporation who would take a strong personal interest in Cine-Mesa's financial and accounting problems was the star, Mr. Bain.

After Mr. Corder's first talk with Mr. Kalif, he realized that there were several factors which complicated the accounting problems at Cine-Mesa. He knew that he would have to recommend a schedule for amortizing the costs associated with producing *Showdown at Sunset Pass.* Mr. Kalif had said that he would have supposed that the thing to do would be to estimate the number of years the picture would run and use that period as a guide. He stated that there had been other "major Western" films which might provide some statistical basis for estimating the life of *Showdown.* Mr. Kalif had also mentioned later that, since there was some chance that the Corporation would realize substantial revenues from television showings of the picture after it had completed its run in movie houses, perhaps some of the costs should be associated with that source of revenue. The television proceeds might result from royalty arrangements or from an outright sale of the film for television showings. In addition, there was the possibility of a re-release of the film for movie houses at some date well in the future.

Mr. Corder suggested that it might be desirable to try to estimate the revenues by years and use those estimates as a basis for amortizing the costs. He said that he would guess that the first year of showing would be the period of greatest revenue. Mr. Kalif was not at all sure that the first year would be the largest revenue-producing period. He pointed out that *Showdown at Sunset Pass* would have several attributes which made it suitable for a first run on an advanced-price, reserved-seat basis. The picture had been adapted from a widely read book; it had big-name stars; and it would be filmed in a new color process called Western-Glow. All of these would make the film somewhat unique insofar as sales promotion was concerned.

If *Showdown* were shown on a reserved-seat basis on its first run, the impact on the revenue pattern, according to Mr. Kalif, would be hard to estimate. He thought that reserved-seat runs sometimes drew people who would not have seen the film on a regular popular-price first run. It would, of course, also mean that many people who would have seen it on a popular-price first run would not see it until later; and in fact, some would never see it because they would not feel they could afford the advanced prices on the first run and would lose interest by the time the film appeared at popular prices. And, as Mr. Kalif pointed out, advanced-price, reserved-seat showings covered a relatively small proportion of the movie theaters in the country. The total effect, therefore, might be that the major flow of revenues from the film would be pushed into the second year, with the result that receipts would be greater in total if the film were run first on a reserved-seat basis but spread out over a longer period of time.

Mr. Bain and Mr. Kalif expected that by December 31, 1960, the date selected as the end of the business year for Cine-Mesa, no revenues would have been realized from *Showdown at Sunset Pass*. The first showings would probably take place in January or February of 1961. Mr. Bain thought it would be desirable, however, to issue some kind of financial statement to the stockholders at that time. He was most anxious to establish good relationships with these investors to whom he might go from time to time for financial backing. He wondered what the December 31, 1960 statement should include in the way of information about revenues. Although no cash would have been received, there would undoubtedly be a large number of firm bookings by that time. Mr. Kalif had asked Mr. Corder whether these bookings could be shown as revenue in a profit and loss statement. All that remained for Cine-Mesa was the actual physical delivery of the film copies, and this Mr. Kalif considered a minor matter that was almost automatic once the film editing had been completed.

Mr. Bain had raised one other question that had occurred to him. He was sure that at some point the *Showdown* film would be adapted for showing in several European countries. Mr. Bain thought it very likely that any proceeds from European showings would not be brought to the United States but left on deposit in European banks for use in late 1961 when he planned to produce a picture in Southern Europe. He wondered how he could show these facts in the reports to stockholders. He was certain that there would be no problems in working out an arrangement between him and Cine-Mesa, Inc.

Required

1. As Mr. Corder, what accounting problems do you see and what accounting policies would you prescribe for Cine-Mesa, Inc., in the preparation of financial statements for December 31, 1960, and for future years? Mr. Corder was especially puzzled at just what constituted inventories in such an enterprise as Cine-Mesa, Inc. You need not be concerned about income taxes.

CASE 22

Jordan Marsh Company (A)

In July 1960, Mr. Donald F. Lynch, staff assistant to Mr. William E. Tilburg, controller and assistant treasurer of the Jordan Marsh Company of Boston, Massachusetts, was explaining the operation of some of the company's accounting systems to John D. Cook, a newly appointed assistant buyer.

"As you know," he said, "Jordan Marsh has three stores in Boston (the main store, the annex, and the basement), but we also have branches at Framingham, Malden, and Peabody. However, we treat the whole complex as a unit, for administrative purposes. Here at my office we collect, record, and analyze financial data pertaining to all the stores. Similarly, a buyer's function is related to his department, which may operate in the Boston store and all the branches. To give you an idea of our size, our annual volume is in excess of $100 million; we have nearly 7,000 employees, and something like 300 different selling departments.

"Each six months we prepare our Operating Statement for each department. This is one of the things that top management looks at in evaluating the performance of each buyer. In order for you to understand how we prepare this statement, let me explain how our record-keeping system operates. I want you to understand this system thoroughly because it is so important in measuring your department's profit.

"Our whole system is geared to inventory control. You're going to be in Men's Suits. You know how many different styles, sizes, and fabrics there are there. Try to visualize the same complexity in 300 other departments, and multiply that by four, for our four locations. My office has to keep track of all that inventory. In total, inventory amounts to one of our major assets. We just have to have a workable control system. This holds good on a store-wide basis, and right on down to each department, like Men's Suits, which is where you come into the picture.

"If we were selling automobiles, it would be relatively simple for us to keep unit records for each car. That would give us easy, positive identification and control. But we don't have unit records in a department store. Physically, that would be almost impossible, and we don't need that kind of control. We're satisfied if we can prove, periodically, that our physical inventory adds up to what the books say it is. To get this proof, we have to count it all up, and we do that twice a year, at the end of January and the end of July, when our inventory is at its seasonal low."

"But Mr. Lynch, that means you have to list it all, work out somehow what it cost (I suppose by price-ticket coding or by checking records made when things were purchased), and add it all up. That must be some job!"

"It would be, John, but we don't do it that way. You see, as I said to you before, we build our inventory control system into our other record-keeping. When a buyer orders goods, he records, at that time, the retail prices to be marked on each item. This is how the marking department gets its instructions. Our statistical office also gets this information, and they can compute the retail value of each order. Add all orders together, at retail, deduct sales (by definition, at retail!), and the difference is the ending inventory, at retail, if you started with no inventory. Next period, you know the starting value of inventory at retail, you go through the whole process again, and get your new inventory figure. It's as simple as that. Then you come along, you tell me that you added up the retail, marked prices on the merchandise in your department, and I compare your figure with what the books show it should be."

"Very neat! But that figure is the retail value. Do you put that in the balance sheet? Isn't it a bit risky?"

"No, we put cost in the balance sheet and the income statement. Our statistical office keeps a running record of not only the retail values but also the cost price of purchases. Then they can tell us what the average markup is on all goods handled. Let's say it's 35 per cent (and we always reckon it on selling price). That means that the cost of goods handled is 65 per cent of the total retail value. We call this the cost complement. We simply multiply the retail value of inventory by the cumulative cost complement, and we have the cost, in dollars."

"Can we go back a moment, Mr. Lynch? I know Jordan's has special sales sometimes, when prices are reduced. Now this would mean that a sale at a special price would not absorb all the cost and markup attributable to the item concerned. I mean that if a suit cost Jordan's $35, and was marked up $14 to $49, but sold in a clearance for $45, there would be $4 left in the inventory account—and no suit! Then our actual inventory count would show up a 'shortage' of $4 when we compared it with your figures."

"That's all taken care of, John. Goods can't be marked down, without special authority. When that authority is given, it has to be in writing, to the marking department, over the buyer's signature. The statistical office picks it up in the same way as they tabulate markups, and we allow for it in computing the book value of inventory. Here, why don't we take a look at your department's figures, and actually see how it all works out. We'll take the last complete season, the one ending January 31, 1960.

"Here's the schedule of what we call 'retail reductions' for your department, Men's Suits, for that season [Exhibit 1]. This is a summary, built up monthly, of all transactions that will reduce the retail value of opening inventory plus purchases. As I said, the markdowns authorized by each buyer (we call them 'regular markdowns') are tabulated by the statistical office. The office also tabulates special price reductions (mainly to employees) which we call 'discount markdowns.' Add these two categories of markdowns to sales, and we have total retail reductions.

"Now look at this one—the inventory account [Exhibit 2]. We start with the retail value of the opening inventory, and the cumulative cost complement of 63.65 per cent gives us its cost equivalent. Each month we add the cost and retail values of purchases to the relevant columns. As by-products, we determine the monthly markup percentage and the cumulative cost complement. Then each month we deduct the cumulative retail reductions from the cumulative retail value of opening inventory plus purchases, to determine the book value of inventory, at retail. We multiply this by the cost complement, and we have the assumed cost value of inventory.

"You'll note that the records showed that the Men's Suits department should have had an inventory of $88,410, at retail, at January 31, 1960. However, the physical stock count revealed an inventory of only $85,860, or a shortage of $2,550 at retail. We made allowance for this by using the figure from the actual count as the January closing figure. This loss is about 0.5 per cent of sales for the period, and is, in fact, slightly less than we expected.

"Now take a look at this sheet—the departmental gross margin statement [Exhibit 3]. We prepare these monthly for each department, for your division manager. You won't get to see these monthly, but let's go over it anyway. Gross margin is simply sales less cost of sales (including alteration expense). We don't have a separate column for cost of sales—just subtract its elements from cumulative sales to get cumulative gross margin. Now, what you're going to get (at least, your boss is), is the six-monthly seasonal departmental operating statement. Here's a copy [Exhibit 4].

"This statement is the formal record of departmental performance. All the buyers' decisions are reflected in there in one way or another. A lot of the calculations are made on these three other statements, but everything finally ends up on the departmental operating statement. You must have some questions!"

"Yes, I do. I hardly know where to start! Let's see, now. From what you've shown me, I presume that you have a separate calculation for each department's cost complement. By inference, you must be assuming that the composition of the final inventory is proportionately the same as that of opening inventory plus purchases. I mean, I assume that there's not an exact markup of 36.5 per cent on each and every item purchased (in fact, I know there's not, because each month's average markup varies slightly). This 36.5 per cent is just an average—the average of all goods handled. You apply its complement to the closing retail inventory. But the resulting 'cost' figure can only be accurate if the closing inventory is a miniature version of what went into the calculation of that average of 36.5 per cent.

"I should think that some lines must move faster than others. They're probably marked up slightly less than a 'typical' line. This would tend to pull the average markup down, or increase the cost complement. This in turn would result in overvaluation of all items with a lower cost complement. Get me?"

"I know what you mean, John. In a way, I mean theoretically, you're right. If we wanted to be really accurate, we would have separate categories and calculations for each markup percentage group. So why do we make our groups up at the department level? Convenience, perhaps? Not really. The fact is that we are satisfied, on the basis of long experience, that the cumulative cost complement is a good, true, and accurate measure to use. There just isn't any violent disparity, within a department, between markups on slow and fast lines. If there ever is, at any one time, it's a purely temporary phenomenon, and quite likely to be counterbalanced by an opposite effect at a later time. It's conceivable that there's not one article in your department with an exact markup of 36.5 per cent. That's not the issue. That figure, we feel, is an accurate, weighted measure of the markup averaged on your turnover."

"Hmm. But there's another point where I really think the system could be improved, because as it stands, it's mighty unfair to the buyers. Look, each department's gross margin performance is a reflection of its buyer's ability. Right? Now, when I learned about accounting, I found out that it only reflects realized profits. It seems to me that the way you're handling markdowns contradicts that rule.

"You're treating regular markdowns as retail reductions as of the time at which they are effected. I think there might be some merit in this if all the marked-down goods were sold, or when they're sold. But if any remain in inventory, and you use the cost complement on their new lower retail prices, in effect you take these goods into inventory at prices lower than their cost to you. So the markdown period has to bear an extra loss, and I just don't see it as a loss. All you're doing is preserving this 'fictional' standard, average markup on all goods, even those marked down, because you mark them down to a base low enough for you to do that on the marked-down price. It doesn't make sense. If you're going to sell an article for more than it cost you, but for less than you expected, why write its cost down (in a period before you sell it) just so you can make the expected percentage? If I were a buyer, I wouldn't mark things down in any reporting period if I wasn't sure, absolutely sure, that they would be sold in that period, because if they weren't, I'd be cutting my gross margin by absorbing unrealized inventory 'losses' that aren't losses at all!"

"Our argument there is that a marked-down article has depreciated, if it has had to be marked down, John. It will have depreciated to such a value as will allow us to achieve our standard markup on it. Why are you so concerned that this may be unrealized, as you put it? It's a loss, isn't it?"

"No, Mr. Lynch, I don't think so. Not if the article is going to be sold for more than it cost you anyway. Something else bothers me, too. Wouldn't it be more realistic to deduct the markdowns from the markups, thus giving a net markup, and then calculate the cost complement from that. Is there any difference? I suppose there must be, but I'm not too sure what it is."

"John, I think the best way for you to get to understand the difference is for you to work it all out. Use the figures you have, and see what you get."

Required

1. Using the data in Exhibits 1 and 2, complete Exhibits 3 and 4. Why is the departmental profit higher in 1960 than in 1959?
2. Assuming that no journal entries had been made in the inventory, purchases, or sales accounts since July 31, 1959, prepare the necessary entries to record all transactions in the Men's Suits Department for the six months ended January 31, 1960.
3. Make the necessary computations for the system suggested by John Cook in the next to last paragraph of the case. What reasons are there for the "difference" referred to by Mr. Lynch?
4. From the buyer's point of view is the system used by Jordan Marsh a fair way to measure merchandising profits?

5. As John Cook, be prepared to advise your buyer as to the effect of the heavy markdowns he took in January 1960. How do the buyer's decisions on markups and markdowns affect the profits shown for his department in the current period? In succeeding periods?

EXHIBIT 1

Retail Reductions, Men's Suits Department
August 1959 through January 1960

	1	2	3	4	5	6
	Sales		Markdowns		Retail Reductions	
	(Month)	(Cumulative)	Discount	Regular	(Month) (1,3, & 4)	(Cumulative)
1959						
August	$ 55,576	$ 55,576	$ 238	$ 941	$ 56,755	$ 56,755
September	96,828	152,404	233	605	97,666	154,421
October	93,293	245,697	243	4,568	98,104	252,525
November	81,104	326,801	263	1,249	82,616	335,141
December	100,306	427,107	477	6,635	107,418	442,559
1960						
January	62,867	489,974	251	9,657	72,775	515,334
Season totals	$489,974		$1,705	$23,655	$515,334	

EXHIBIT 2

Inventory Account, Men's Suits Department
August 1959 through January 1960

	1	2	3	4	5	6	7	8	9
	Purchases - Cost		Purchases - Retail		Markup %	Cost Complement	Retail Reductions	Ending	Inventory
	(Month)	(Cumulative)	(Month)	(Cumulative)	(Month)	(Cumulative)	(Cumulative) Exhibit 1	Retail	Cost
					(3-1) ÷ 3	2 ÷ 4		4 - 7	8 x 6
1959									
August 1 Inventory	$28,481	$ 28,481	$ 44,747	$ 44,747	36.4%	63.65%	-	-	-
August	33,034	61,515	50,324	95,071	34.4	64.70	$ 56,755	$38,316	$24,790
September	63,040	124,555	97,954	193,025	35.6	64.53	154,421	38,604	24,911
October	83,285	207,840	134,658	327,683	38.2	63.43	252,525	75,158	47,673
November	66,920	274,760	104,672	432,355	36.1	63.55	335,141	97,214	61,779
December	55,564	330,324	87,528	519,883	36.5	63.54	442,559	77,324	49,132
1960									
January	53,050	383,374	83,861	603,744	36.7	63.50	515,334	88,410	
Actual Inventory								85,860	54,521
Inventory Shortage								2,550	

EXHIBIT 3

Gross Margin Statement, Men's Suits Department
August 1959 through January 1960

	1	2	3	4	5	6	7	8	9
	Sales	Purchases	Alterations	Ending	Gross Margin			% GM/Sales	
	(Cumulative)	(Cumulative)	(Cumulative)	Inventory	(Cumulative)	(Prev. Mo.)	(This Mo.)	(Cumulative)	(This Mo.)
	Ex. 1	Ex. 2		Ex. 2	1 + 4 - 2 - 3		5 - 6		
1959									
August	$ 55,576	$ 61,515	$ 40	$24,790	$ 18,811	-	$18,811	33.8%	33.8%
September	152,404	124,555	70	24,911	52,690	$18,811	33,879	34.6	35.0
October	245,697	207,840	132	47,673	85,408	52,690	32,718	34.8	35.1
November	326,801	274,760	149	61,779	113,671	85,408	28,263	34.8	34.8
December			182						
1960									
January			229						

EXHIBIT 4

Departmental Operating Statement
Six Months Ended January 31, 1960
(Dollar figures in thousands)

Buyer: Mr. Malherbe — Department: Men's Suits

Actual Dollars	This Year		Last Year	
1. Net sales			$458.6	
2. Purchases and alterations			$325.9	
3. Inventory reduction (addition)			(10.3)	
4. Cost of sales			$315.6	
5. Gross margin and %/sales			$143.0	31.2%
6. Discounts and rebates	$31.4		31.3	
7. Gross margin plus discounts			$174.3	
8. Direct expense: Advertising	$22.8		$ 18.9	
9. Direct expense: Buyers' salaries	8.9		8.8	
10. Direct expense: Sales' salaries	23.3		20.2	
11. Direct expense: Other	3.9		3.6	
12. Total direct expense and %/sales	$58.9	12.0%	$ 51.5	11.2
13. Controllable operating profit			$122.8	
14. Prorated and other expense	$53.7		$ 57.0	
15. Net operating profit			65.8	
Retail Dollars				
16. Beginning retail inventory			$ 62.7	
17. Retail purchases			511.6	
18. Total			$574.3	
19. Sales			$458.6	
20. Markdowns - regular and %/sales			29.6	6.5
21. Markdowns - discount and %/sales			1.9	0.4
22. Ending retail inventory			79.3	
23. Inventory shortage and %/sales			4.9	1.1
24. Total			$574.3	

CASE 23

Wade Processors, Inc.

On March 3, 1958, the first units of production were completed at the plant of Wade Processors, Inc. The company had been incorporated early in January 1958, shortly after receiving approval of a patent application covering its proposed manufacturing process. The three founders immediately set about to make arrangements for leasing manufacturing space, acquiring equipment, establishing firm marketing commitments, procuring supplies, and hiring the small work force that would be needed to commence operations. Thus, on March 1, the preliminary organization period was terminated, and Arthur and William Ross and Joseph Grossman began what they believed would be a long and successful manufacturing operation.

Arthur and William Ross were graduates of a prominent Midwestern business school and had met Mr. Grossman, a research chemist and registered engineer, at a product development seminar shortly after their graduation in 1956. At the time of their first acquaintance, which lasted for the better part of the summer of 1956, the three men became interested in the possibilities of developing commercial markets for materials that had been, up to that time, considered to be primarily food wastes. Although nothing tangible was accomplished over that summer, the men agreed that they would be interested in pursuing the matter further. The Ross brothers were willing to secure financial backing for any project that had reasonable possibilities for success, and Grossman would explore the possibilities of developing a practical, commercial reclamation process.

In due time, Grossman advised the brothers that he had found a procedure for making at least two commercially marketable products from recoverable wastes. He felt that his process was unique and that he could secure patent approval for it.

Accordingly, William Ross obtained capital investment commitments from several associates, and he and his brother each agreed to invest $25,000 in the new venture. Grossman was to be given 200 shares of stock ($100 par) in exchange for his development of the process and the costs that he had incurred.

Although the manufacturing process was not complex, it did require a small amount of special equipment. Essentially, the process comprised cleaning the materials, and crushing, grinding, drying, and screening the ground powder. The screening process yielded two distinct grades of granular substance. The coarse grade, marketed as "Argamen," was sold as a filler for certain types of livestock feeds; in addition to having some small value as a food material, it also satisfied the coarse-bulk requirements of the less active types of farm livestock. The finer grade was acceptable as a base material in the manufacture of cheap abrasive compounds and, as such, found a ready market.

Messrs. Ross and Mr. Grossman saw their sales expand rapidly between March 1 and the end of the year, and kept track of the costs of operation very carefully so that they could analyze the profitability of their business. The schedules that follow present a summary of the information that they accumulated between March 1 and December 31. From this information they wished to have a balance sheet and income statement prepared for 1958. Because of the different natures of the two products, they wished to have an inventory figure for each product rather than one summary inventory figure. They decided among themselves that the first-in-first-out (fifo) basis should be used for valuing inventory, but were interested to know what difference it would have made had they used the last-in-first-out (lifo) basis.

EXHIBIT 1 Contributions of Capital

Contributed by	Amount	Number of Shares Issued ($100 par)
William Ross	$25,000	250
Arthur Ross	25,000	250
Joseph Grossman	*	200
James W. Leonard	10,000	100
Ames Dillavou	5,000	50
Others	10,000	100
	$75,000	950

*Grossman's contribution was the development of the process. His total outlays, including the cost of securing the patent, were approximately $14,500. All the stockholders agreed to issue stock with total par value greater than that amount to "reward Grossman for his singular contribution to the activation of the business."

EXHIBIT 2 1958 Manufacturing Data—Quantities

1. Purchases of Bulk Materials:

March: 2,000 tons @ $.317/cwt
April: 2,300 tons @ .315/cwt
May: 2,600 tons @ .310/cwt
June: 3,100 tons @ .288/cwt
July: 3,700 tons @ .287/cwt
August: 2,400 tons @ .285/cwt
September: 2,000 tons @ .294/cwt
October: 1,800 tons @ .295/cwt
November: 1,600 tons @ .296/cwt
December: 1,800 tons @ .298/cwt

2. Bulk Materials Released to Process: 20,600 tons

3. Production Yield:

	Tons
Argamen	2,400
Base granules	16,200
Saleable waste	1,000
Nonrecoverable waste	400
	20,000

4. Distribution of Production:

	Argamen	Base Granules	S.W.	N.R.W.
Sales (in hundred pounds)	28,000	216,000	18,000	7,500
Inventory, hundred pound units as of 12/31/58	20,000	108,000	2,000	500
	48,000	324,000	20,000	8,000
Convert to tons	÷ 20	÷ 20	÷ 20	÷ 20
Tons accounted for	2,400	16,200	1,000	400

EXHIBIT 3

Cash Disbursed and Expenses Incurred
March 1 through December 31, 1958

	Items Paid	Balance Owing	Total Paid and Obligated
Materials-bulk shipments	$102,014	$36,630	$138,644
Manufacturing costs:			
Rental payments	31,500		31,500
Indirect materials	32,012	2,498	34,510
Wages (*)	37,086	694	37,780
Power and water	4,120	560	4,680
Heat	8,200	2,200	10,400
Other expenditures:			
Cost of organizing	3,700	–	3,700
Executive salaries	19,800	–	19,800
Purchase price (installed) of new machinery	21,800		21,800
Payments on used equipment	45,000	†	†
Miscellaneous administrative	6,606	2,040	8,646
Installation of used eqpt.	14,830		14,830
Payments on bank loan	15,000	–	15,000
Packaging materials	3,746	6,490	10,236
	$345,414	$51,112	$396,526

*Withholding taxes not to be considered.

†See Exhibit 5.

EXHIBIT 4

Cash Receipts and Amounts Due
March 1 through December 31, 1958

	Received	Due But Not Received to 12/31	Total
Sales of Argamen	$177,850	$25,150	$203,000
Sales of base granules	27,100	5,300	32,400
Sales of waste	3,600		3,600
William Ross	25,000		25,000
Arthur G. Ross	20,000	5,000	25,000
James Leonard	10,000		10,000
Ames Dillavou	1,000	4,000	5,000
Other investors	8,000	2,000	10,000
Proceeds of bank note	79,200		79,200
	$351,750	$41,450	$393,200

EXHIBIT 5 Other Information

1. Supply of packaging materials on hand on 12/31 = $3,746.

2. Selling prices:

Argamen	$7.25/cwt
Base granules	.15/cwt
Saleable waste	.20/cwt

3. Depreciation of new machines on basis of 5-year life; used machines on 10-year life; no salvage value anticipated.

4. Lease terms: 5 years with option to renew with 10% increase in rental for another 5-year period.

5. Bank loan: In terms of a loan arrangement concluded on 4/1/58, the company sold a $90,000 face value note to the bank. The total period of the loan was three years; a $7,500 repayment was to be made each three months from the date of the loan. The bank's charge for this arrangement was a nominal rate of 4% for each year, on the total face value of the note. The net proceeds to the company were therefore $79,200 ($90,000 less 12% of $90,000).

6. Financing of used equipment: Purchase price on 3/1/58 was $216,000. Paying seller $15,000 quarterly for 4 1/4 years, starting on 6/1/58. Payment includes principal and interest.

7. Production was planned so that machinery could be dismantled for cleaning during last week of December; there were no materials in process.

8. Income tax was payable at 30% of the first $25,000 of reported profits, and 52% of any excess.

CASE 24

Pahala Sugar Plantation, Ltd.

In April 1961, Mr. Cecil Forbes, a wealthy Hawaiian business entrepreneur, had been approached by Pahala Sugar Plantation, Ltd., relative to the leasing of a large tract of land which had been in the Forbes family for many years. Pahala Sugar planned to use the land to increase the size of their present sugar cane plantation, and had offered to pay Mr. Forbes, "40 per cent of the gross operating profit from sugar sales reduced to a proportionate share based on the ratio of the number of acres leased from Forbes to the total number of acres which Pahala operated." A meeting had been planned between Mr. Katana, Pahala plantation manager, and Mr. Forbes for April 17, 1961, at which time the final terms of the lease contract were to be negotiated.

Mr. Forbes knew it was a common practice in the sugar cane industry to lease land based upon a percentage of operating profit, since the quality of the land was an important factor in producing profitable sugar cane, but he also knew that the term "operating profit" meant many things to many people. He was not satisfied that the phraseology used by Pahala was sufficiently definitive to assure him a fair return for the use of his land, and thus he wanted to be sure that the final lease agreement was stated in terms that would assure him of a fair compensation for the productivity of his land. He obtained Pahala's financial statements for the year ended December 31, 1960 (Exhibits 1 and 2) and certain supplemental information (Exhibit 3), which he hoped would better prepare him for the forthcoming contract meeting. After a cursory examination of these statements, he decided to confer with his personal accountant, Mr. Tene, about the interpretation of the statements and the terminology which should be used in the final lease contract.

PAHALA HISTORY

Pahala Sugar Plantation, Ltd., located near the city of Pahala on Hawaii, the largest island of the Hawaiian Island group, had been founded in 1810. Pahala had grown steadily until 1925, when its annual sales volume had leveled out at approximately one million dollars and fluctuated around that level until 1942. In 1942, due to the increased sugar needs brought about by World War II, Pahala expanded its sugar operation and increased its gross sugar sales to 1.6 million dollars during the war years. Since 1946, sales revenue from sugar operations had grown slowly and had exceeded 1.8 million dollars in 1960. This sales volume made Pahala one of the smaller of the thirty sugar plantations in the state of Hawaii.

As was typical of all sugar plantations, Pahala processed the sugar cane it raised into raw sugar which was then sent to the continental United States for refining. In 1960, Pahala had nearly 4,500 acres of land (approximately 80 per cent of which was cultivated) under its control, with 75 per cent of the land owned by Pahala and 25 per cent leased from the State of Hawaii or individual lessors. During 1960, Pahala had decided to expand its production of raw sugar in order to share in the increase in consumer demand for sugar and sugar products which was expected to take place in the decade of the 1960's. In light of this decision, Pahala approached Mr. Forbes with the intent of leasing nearly 1,200 acres of land bordering on that which Pahala currently owned and operated. Most of the land which Pahala leased was covered by ten- to twenty-year lease contracts as was common in the industry.

CULTIVATION AND PROCESSING OF SUGAR CANE

Sugar cane field operations consisted of three distinct types of work, all of which were carried out on a year-round basis thus providing steady employment for a given work force, in contrast with most other types of agricultural employment.

The first type of activity was the preparation of raw virgin land for the initial planting of the sugar cane. This consisted of cutting trees and brush from the land, dynamiting and bulldozing rocks and lava deposits, leveling and turning the soil, and installing roads, central irrigation canals, and irrigation reservoirs. This activity had to be performed only once for any given tract of land, and thus Pahala only performed this activity during those years when new land was acquired for cultivation. During 1960, 400 acres of new land had been so prepared at a cost of $46,780, as shown in the first part of Exhibit 3. Mr. Katana stated that these expenditures were typical and that the cost of preparing larger tracts of land would vary in proportion with their size. The 400 acres had been obtained to replace 423 acres of leased land which were worn out insofar as productive sugar cane operation was concerned. The lease on this worn-out land had not been renewed in 1960. The life of any field was considered to vary between twenty and thirty years, although the average life of a plantation lease was only fifteen years. Pahala could restore productivity to the worn-out land by allowing it to lie fallow (idle) for a period of several years, but this was not common for leased land, since the lease on such land could be allowed to run out, thus shifting the burden of revitalizing the land to the lessor. Even on owned land a high rate of turnover existed, since Pahala's management felt it was wiser to sell a piece of productively low land rather than hold it fallow until it was ready for replanting. An abundant supply of virgin land was available for the growing of sugar cane and thus the productively worn-out land presented no real problem to Pahala's management.

The second activity involved the planting of the sugar cane. Sugar cane was a perennial grass which grew from ten to twenty feet high and produced a mature grass crop from every twenty-two to twenty-four months. When the first stand of cane was cut, a second crop, called a ratoon crop, grew from the old-established root system without a new planting. This reproduction process would take place every two years indefinitely, but each successive ratoon crop was less productive in terms of juice produced. Because of this decreasing productivity, a new root system was planted from every eight to ten years depending upon the variety of cane which was being replaced.

The planting of a new root system required that the old cane roots be dug up and that the field be reworked by deep plowing and furrowing. New irrigation ditches had to be dug, and the aluminum (or concrete) irrigation flumes had to be relaid to connect with the permanent irrigation canal. Once the field was prepared, a three-foot trough was dug in which the sugar cane seed was placed. The "seed" consisted of a two- to three-foot length of sugar cane stalk which had either been (1) cut from the cane of a previous crop, (2) developed in the experimental field by the agricultural methods research department, or (3) purchased from another sugar cane producer. The seed was then covered with earth and the field was flooded to start the germination process. The cost of planting or replanting incurred during 1960 was itemized as shown in the second portion of Exhibit 3. This was the cost of planting the 400 acres of new land acquired, and the cost of replanting 50 acres of land which Mr. Katana felt had passed the point of optimum productivity.

The final and most time-consuming activity performed by the field crew was that of the annual cultivation and maintenance of the growing sugar cane. The cane crop had to be cultivated frequently to destroy weed growth and to maintain good drainage and tillage. Pahala's research department had found that excessive weed growth reduced the sugar content of the cane substantially. In addition to cultivation, chemical herbicides were used to control the growth of weeds, and other chemical agents were used to control various types of insect pests and crop diseases. In the past, red rot disease had destroyed whole fields of cane, and even now with improved disease and insect control, the sugar plantation was not free from the hazard of such pestilence. The threat of hurricanes was also a matter of concern to Mr. Katana because previous hurricanes had destroyed as much as from 60 to 70 per cent of the sugar cane in the field.

Fertilization and irrigation in proper amounts were also crucial to the growth of a high-sugar content cane. Water was not only pumped from wells on the Pahala plantation, but was also purchased from mountain water supply sources during critical growing periods of the year. A lack of the proper supply of water could cut the sugar content of the crop in half.

When the cane matured, it had to be harvested immediately because the sugar juice which had accumulated in the cane would deteriorate if it was allowed to stand in the field for any length of time. The harvesting process began when the field was "fired" (set on fire) to burn off the leaves and pithy upper portion of the cane. This did not damage the cane stalk itself. The cane was next cut at ground level and raked into piles. Men then pitched the stalks into trucks for transportation to the raw sugar mill.

Because of the continuous growing season in Hawaii, it was possible through careful planning to plant, harvest, and refine the cane fairly regularly throughout the year. Thus, each year approximately one-half of the total area under cultivation would be harvested and a new ratoon crop would start to grow. In any one year, approximately 40 per cent of the field crew's time was spent in caring for the cane crop which was to be harvested the following year (2,127 acres planned for 1961 exclusive of any acreage expansion); 30 per cent was spent in cultivating the crop that was to be harvested in the current year (1,787 acres in 1969); and 30 per cent was spent on the current year's harvesting operation. During 1960, $592,522 was spent in cultivating, maintaining, and harvesting the sugar cane crop (see Exhibit 3).

At the raw sugar mill, the cane was first washed, then passed through knives which shredded the cane and finally sent between sets of large rollers which crushed the cane, separating the juice from the stalk. The juice was then passed into a large heating pan, and lime was added to precipitate out certain solids thus clarifying the liquid. The fibrous cane material which remained after this process was referred to as "bagasse" and was used as fuel for the boilers at the sugar mill. During 1960, some of the bagasse had been sold commercially to be used in the production of fiber wallboard, and Mr. Katana stated that new uses for the product had recently been developed in the fields of paper-making and plastics manufacturing. It was his opinion that all the plantation's bagasse would soon be sold commercially and that hydroelectric power would replace the steam boilers in the plant.

The sugar solution in the pan was heated slowly until 85 per cent of the water had been evaporated, at which time the sucrose (or sugar) began to crystallize. The solution was then put into a vacuum pan where the crystallization of the sucrose was completed, leaving blackstrap molasses as a residue. The dark brown sugar crystals were then bagged and shipped to the continental United States for refining.

The residual blackstrap molasses was used in the production of rum, commercial alcohol, safety glass, and certain molded resins. Sales of this product accounted for $97,980 income in 1960 (see Exhibit 2). Mr. Katana stated that a ready market existed for all the residual molasses that could be produced.

One of the most important behind-the-scenes activities in the operation of a sugar cane plantation was that of research and development. Varieties or species of sugar cane would weaken and deteriorate with continued use, and thus the agricultural research department was continuously trying to breed new revitalized species of sugar cane. The department operated experimental plots where various species and cross-species were planted and observed. Moisture requirements, effect of fertilizers, weeds, and irrigation, sugar content, and other variables were carefully controlled and measured in the development of a new strain of cane. A new improved strain of cane would be developed, on the average, every two to three years, and would be used to replace previous varieties of cane as called for in the rotational field planting master plan. During 1960, over one-half of the department's time had been devoted to the development of a new species of cane, number 60-1492. This cane had initially been planted on an experimental basis is late 1958. The expenses of the research department for 1960 amounted to $94,682.

Required

1. As Mr. Tene, the accountant, prepare a report for Mr. Forbes in which you recommend the lease terms and the terminology that should be used in the

lease contract. Provide Mr. Forbes with a solid basis upon which the terms of your proposed lease contract could be justified to Mr. Katana.

2. Upon what grounds could Mr. Katana object to the terms of your proposed lease?
3. In your opinion, are the financial reports now used by the Pahala Plantation adequate for internal management? For reporting to stockholders?
4. What major financial reporting problems do you believe the accounting officer of the Pahala Plantation, Ltd., faces in the sugar plantation operations?

EXHIBIT 1 Balance Sheet, December 31, 1960

Assets

Current assets:		
Cash		$ 5,460
Accounts receivable:		
Advances to lessors	$ 73,920	
Trade	11,113	85,033
Inventory of supplies—at cost		76,390
Total current assets		$ 166,883
Investments, at cost:		
C & H sugar refinery, 2,060 shares	$ 410,000	
Other	38,600	
Total investments		448,600
Property, plant, and equipment, at cost:		
Buildings	$ 326,240	
Machinery and equipment	1,271,400	
Leasehold improvements	1,810	
Water system and reservoirs	147,900	
Roads, bridges, and fences	282,300	
Other	65,775	
	$2,095,425	
Less: Reserve for depreciation and amortization	1,215,305	
	$ 880,120	
Land	275,080	
Total property, plant, and equipment		1,155,200
Prepaid expenses		24,417
Total assets		$1,795,100

Liabilities and Capital

Current liabilities:		
Accounts payable—trade		$ 68,760
Notes payable, due within one year		15,000
Accrued liabilities:		
Cane purchases, balance due cane growers	$ 22,100	
Payroll & salaries	82,860	
Federal income tax	102,400	
State income tax	10,600	
Other	15,250	233,210
Total current liabilities		$ 316,970
Long term debt:		
5% note due Hilo City Bank		185,000
Capital shares and surplus:		
Common stock, no par, authorized and issued 400,000 shares		400,000
Reinvested earnings at use in the business		893,130
Total liabilities and capital		$1,795,100

EXHIBIT 2

Statement of Income for the Year Ended December 31, 1960

Gross income from sugar sales (15,100 tons sugar @ average price of $120 per ton, harvested from 1,787 acres)		$1,812,750
Less operating expenses:		
Cost of cane accumulated prior to its delivery to the mill yard.*	$944,680	
Manufacturing costs (including mill yard operations and raw sugar production)*	292,110	
Employee servicing costs (Pension costs, vacation payments, payroll taxes, health & life insurance, etc.)	110,240	
Marketing expenses	271,300	
General and administrative expenses*	198,525	
Total operating expenses		$1,816,855
Gross operating profit (loss)		$ (4,105)
Other income:		
Dividends from security investments	$ 20,400	
Gross income from sale of molasses (5,500 tons molasses @ average price of $17.50 per ton, residue from 15,100 tons of sugar)	97,980	
Gross income from sale of bagasse (Represented 1/10 of total annual residual bagasse)	7,358	
Conditional payment on prior years crop under provisions of the Sugar Act. †	134,625	
Profit from sale of real property	4,390	
Other	3,800	
Total other income		268,553
Other expenses:		
Loss on obsolete property	$ 2,878	
Interest on notes and other indebtedness	12,185	
Loss on sale of securities	1,685	
Other	16,300	
Total other expenses		$ 33,048
Net income before income taxes		$ 231,400
Provision for federal and state income tax		113,000
Net profit after tax for 1960		$ 118,400

*See Exhibit 3 for an analysis of this expense.

† Subject to the conditional payment provisions of the Sugar Act of 1948, having been complied with relative to restrictive production quotas for the year 1960, a payment on the sugar production for the year of approximately $130,000 should be received from the Secretary of Agriculture in 1961. Payment in the amount of $134,625 covering the 1959 year was received and credited to income in the 1960 statement of income. Mr. Katana felt this payment could be justified as "other income," since it was a contingent payment made only if assigned government production quotas were not exceeded. Pahala's planned expansion was not expected to violate these quotas.

EXHIBIT 3 Detailed Cost Analysis of Various Cost Accounts

Cost of Cane Accumulated Prior to its Delivery to the Mill Yard

Original field preparation:			
Clearing		$ 8,760	
Plowing and required blasting		14,320	
Road preparation		7,500	
Preparation of the irrigation system		16,200	
Total outlay for field preparation in 1960			$ 46,780
Planting and/or replanting of cane:			
Plowing		$ 4,774	
Planting		13,198	
Replanting plant		3,250	
Cost of seed cane		19,310	
Placement of irrigation flumes		8,300	
Total outlay for cane planting in 1960			48,832
Cultivation and maintenance of growing crops:			
Ratooning:			
Preparing ratoons	$ 8,621		
Replanting ratoons	24,162		
Seed cane	13,394	$ 46,177	
Weed control:			
Herbicide weed control	$ 42,742		
Herbicides used	63,680		
Hand weeding	2,620		
Mechanical cultivating	1,313	110,355	
Fertilizing:			
Fertilizer used	$ 62,462		
Airplane fertilizing	6,521		
Mechanical fertilizing	71,080	140,063	
Irrigation:			
Preparation of irrigation system	$ 13,275		
Irrigation	46,219		
Water supply system	30,010		
Maintenance of system	3,700	93,204	
Miscellaneous cultivation expenses		12,163	
Total cultivation and maintenance of growing crops for 1960			401,962
Miscellaneous charges:			
Agriculture and methods research department		$ 94,682	
Road maintenance		32,180	
Harvesting and transporting cane:			
Mechanical harvesting	$ 45,530		
Field transportation	42,210		
Trucking of cane to mill	102,820	$190,560	
Field rental		38,000	

(cont'd)

EXHIBIT 3, cont'd

Cost of cane purchased from other growers to be processed in Pahala's mills—in lieu of field rental payments. (Fields under Pahala's control under special agreement)	$ 70,284	
Miscellaneous services, e.g. garage, maintenance shop, quarry, and civil engineering	21,400	
Total miscellaneous charges		$447,106
Total cost of cane accumulated prior to the milling operation		$944,680

Manufacturing Costs

General factory cost	$ 44,102
Mill yard	25,340
Cleaning plant	20,085
Crushing plant	38,820
Fireroom	34,210
Boiling house and laboratory	84,674
Off-season repairs	44,879
Total manufacturing costs—1960	$292,110

General and Administrative Expenses

Plantation administrative	$ 34,975
Accounting	41,290
Warehousing	21,010
Industrial engineering	5,500
Industrial relations	8,743
Other administrative	61,545
Hauling labor—hired	7,252
Housing and village servicing	2,530
Medical clinic	15,680
Total general and administrative—1960	$198,525

CASE 25

Rocky Mountain Construction Company

Early in February 1960, during a meeting of the board of directors of the Rocky Mountain Construction Company, located in Boulder, Colorado, Mr. Benthall, president and chief operating officer, expressed his concern over an operating statement which had been presented at the meeting (see Exhibit 1). A discussion of this statement ensued in which several of the directors and officers present took opposing views concerning the proper presentation of income for the land development department of the company. The company's statements were not only used by management for evaluation of company operations, but were also sent to the company's stockholders. Furthermore, Mr. Benthall realized that the company's statements were going to be presented to the public or to a commercial bank in the near future in order to raise the capital necessitated by the company's recent expansion into the field of land development.

Because of the confusion and uncertainty created at the board meeting and because of the importance of the financial statements, Mr. Benthall contacted Mr. Reardon, a member of the staff of a large management consulting firm located in Denver, Colorado. He asked Mr. Reardon to evaluate each of the opposing viewpoints presented at the board meeting and to recommend to him the best method of preparing the statement under discussion. He then explained to Mr. Reardon the events which had led up to his present request.

COMPANY BACKGROUND

Mr. Benthall and his two sons had incorporated the Rocky Mountain Construction Company in 1946 as a small masonry and general home improvements construction organization located in Boulder, Colorado. The company had grown rapidly during its first few years and had expanded its operations into residential home construction and small industrial plant construction. As additional financing became necessary, Mr. Benthall had sold stock to several local Boulder businessmen, but he and his sons retained ownership of 65 per cent of the stock and desired to maintain a controlling interest in the company if possible. However, the need for cash was so pressing that Mr. Benthall and his sons had agreed to a public stock offering, if this was the only alternative. The company's net profits before taxes had been in excess of $50,000 every year since 1951, and had reached $70,000 for the year ending December 31, 1958. The company was expecting annual profits of $75,000 from its construction operations during the next few years.

Up until 1959, the company had primarily built private homes, and had constructed small manufacturing plants in the Boulder-Denver area. The industrial growth of Boulder was quite rapid between 1946 and 1958, and continued rapid growth of this area was expected. The population of Boulder, located thirty miles from Denver via a turnpike, had increased from 20,000 in 1950 to close to 40,000 in 1958, and the number of industrial plants in the city had increased over 400 per cent. Many national companies had indicated their interest in building local branch plants and offices in Boulder because of its ideal geographical location and pleasant living conditions at the foot of the Rocky Mountains.

In late 1958, Mr. Benthall and his sons decided that the development of an industrial park in Boulder would probably be a profitable venture in view of the area's growth expectations. After consulting with local real estate agencies, they decided that the purchase of fully improved, subdivided land would be economically unsound, and therefore decided to establish a land development department in the company which was to develop raw land into plots suitable for industrial plant construction. If this operation proved to be profitable, they planned further industrial land development undertakings of this same nature in the Denver-Boulder area.

The company purchased a tract of land, 2,768,709 square feet, adjoining Route 119, a major highway leading into Boulder, and began planning Boulder Industrial Park. They hired an accountant to maintain all financial records and act as office manager for the new department with the responsibility of carrying out the plans indicated by Mr. Benthall.

BOULDER INDUSTRIAL PARK

In mid-December 1958, a purchase price of $500,000 for the land was agreed upon, and an architect was hired to draw up plans for the proposed industrial park (see Exhibit 2). Legal fees, title transfer fees, and title insurance premiums of $3,909, were also expended on the project at that time.

During 1959, the company began to develop the raw farm land into tracts suitable for the construction of industrial plants. Some of the work was performed by the land development department itself, and other phases of the work were subcontracted to specialists.

After the initial phase of surveying and laying corner markers, general excavation was started. The land was first cleared of trees, brush, rocks, and old farm buildings, and in some spots, geological deposits of peat moss had to be removed and filled with gravel or other solid fill. Grading or leveling was the second step in the land improvement program. Next came the installation of temporary haul roads and storm ditches or drains. Once this work had been completed, permanent access roads, storm drains, sewers, and water mains were installed in the industrial park. As of December 31, 1959, certain of these operations had been fully completed, whereas others were only partially completed. Nearly $300,000 had been spent on these operations during 1959. Exhibit 3 lists the total improvement costs incurred as of December 31, 1959, for each of the major land development phases, and indicates the required cost to complete each improvement phase as estimated by the individual project or operation superintendent or contractor. The first column (labor) listed the labor cost of those operations performed directly by the land development department itself, whereas the second column (invoice) listed not only the cost of materials, but also the cost of that work which had been subcontracted. This column also included the charge for equipment rental as determined by the company's construction department. The land development department owned no heavy equipment and thus incurred no depreciation on its books. Instead, all equipment was owned and maintained by the construction department which charged a flat rental rate to the land development department for the use of all equipment. These charges amounted to $30,000 in 1959. The third column accumulated the total cost of land improvement to December 31, 1959. The last three columns listed the estimated costs of completing this land development project.

Two parcels of land were completed and disposed of during 1959 (as indicated in Exhibit 4). One was sold to an industrial organization for plant construction, and the other was transferred to the construction department for construction of a plant which would then be sold or leased by the company to an industrial concern desiring to locate in the Boulder area.

In order to summarize the operations for the year 1959, Mr. Rabit, accountant and office manager of the land development department, prepared an operating statement (reproduced as Exhibit 1) for the land development department and presented it to Mr. Benthall and the board of directors for approval at their February meeting. It was because of the ensuing discussion that Mr. Benthall felt he had to consult with Mr. Reardon in order to clear up the confusion created at the meeting.

GENERAL MEETING OF ROCKY MOUNTAIN'S BOARD OF DIRECTORS

MR. BENTHALL: Our next item of business is the profit and loss statement of the land development department as prepared by Mr. Rabit, the department's accountant [Exhibit 1]. As we expected, the department showed a large operating loss for the year 1959 due to the large outlay for land and initial land development costs which were incurred during the first year. However, I'm quite concerned over the prospect of combining this department's $73,000 loss with the construction department's 1959 profit of $68,000, thus disclosing a net loss for the year of $5,000. Not only will our present shareholders be quite concerned over this loss, but the probability of floating a new stock issue or of obtaining a bank loan would be substantially reduced by the presentation of such a statement. As you know, I have already come under fire because of my decision to enter the land development business, and the picture this statement presents would certainly add fuel to the fire.

FRANK REED [Director of Rocky Mountain and Owner of (Ledgewood) Realty Co.]: Roy [Mr. Benthall], I think we need to take a really close look at Mr. Rabit's statement. I, for one, don't agree with his method of presenting the land development department's results for 1959. He seems to have forgotten that the department has a large inventory of partially improved plots on hand as of the end of the year; yet he has deducted from sales income the total cost of the entire tract and all the land development costs to date. Some of this should be deferred as the cost of land that is still available for sale. In my opinion, Mr. Rabit has prepared a very misleading and incorrect statement of the department's profit for 1959, and if certain land costs are deferred, the department will show a profit rather than a loss for 1959.

BILL COLLINS [Rocky Mountain stockholder]: Now Frank, hold on just a minute. The statement that Mr. Rabit prepared is an honest presentation of the cash flow that took place in the department in 1959. It is essentially a cash statement, with certain normal accruals and deferrals, that essentially shows how the company's funds were derived and used in 1959. It serves its purpose and should be useful to management in its cash budgeting program.

MR. BENTHALL: This may be so, Bill, but the statement still doesn't lend itself to obtaining outside financing. I think Frank had a good idea when he said that certain of these costs could be deferred until future periods of time, but two points about his approach bother me. First, what happens to these deferred costs if our expected future sales don't materialize? We might not sell all those plots for two or three years yet, even though we have spent the money. And second, how do you propose to allocate the total land costs to the plots which were sold? I'm sure that Mr. Rabit didn't keep track of the costs by individual plots, and as you know the plots are at various stages of completion.

JAMES HICKMAN [Director of Rocky Mountain and Vice President of Construction Contracting]: Roy, I think that Frank is making a mistake when he only looks at individual plots. I think we should consider the Park as a complete entity in itself, and recognize income from it based on the percentage of completion method used in our construction operation. From the figures Mr. Rabit gave you [Exhibit 3], you can estimate the completed cost of the development. You could also estimate the total income which you expect to receive from the development based on sales to date. Then the profit recognized this year would be the percentage of estimated total profit that incurred costs to date bear to estimated total costs. And furthermore, such a statement would show a higher profit than the one which Frank proposes, and thus the earnings per share figure this year would reflect the true profit which the company earned during the year. This would end some of the unfavorable criticism which several of our shareholders expressed when we went into the land development business and would provide a healthy income statement which could be used to float a stock issue or obtain a bank loan. This method would also eliminate the necessity of trying to assign costs to individual plots, and would answer Roy's question about deferred costs.

MR. BENTHALL: Jim, I like your idea of the high earnings figure. . . .

FRANK REED: Now just a second, Roy! Don't let Jim confuse you by his slippery methods of pulling a big profit out of the clear blue! That land hasn't been sold yet, and you can't recognize profit on your inventory just because you would like to have a pretty income statement. The only profit we are entitled to show is that profit which we made on actual sales during 1959. Why, Jim's method would have us showing income this year on plots which may not be sold for two years! That just isn't good accounting. And not only that, but think of the additional income tax you would have to pay under his method. You would be paying tax this year on cash income which you wouldn't be receiving until next year or the year after.

BILL COLLINS: You're right, Frank, that Jim's method would show a higher profit figure, but it is not allowed by the tax authorities. The tax code clearly specifies the method of accounting that land development companies are required to use in statement preparation, thus leaving us little leeway in preparing our published statements. The Prentice-Hall Tax Guide, paragraph 10,163, states, "The cost should be equitably apportioned to the several lots, and gain or loss calculated on each lot sold. This rule implies that there will be an individual gain or loss on every lot sold and not that the taxpayer shall wait until the capital on the entire tract has been recovered through sales receipts before any taxable income is to be returned. Development costs, including future development costs, may be included in computing gain or loss on sale of lots. Cost apportionment must be made equitably and not ratably, for example, on market price rather than on a square-foot basis, since front lots would ordinarily bear a greater portion of the cost than those in the rear of the development."

BOB ALLEN [Director of Rocky Mountain and Executive Vice President of the

First National Bank of Boulder]: You are probably right on the tax regulations, Bill, but that doesn't mean we have to prepare our published statements in accordance with the tax code. We can prepare them in any manner we desire, and I can't agree with you, Jim, or with the tax code, Bill, when you propose a recognition of profits which may never materialize. Your methods assume that all the land will eventually be sold, and at a profit. However, I think Jim started out on the right track when he said you had to look at the Park as one complete entity, not as nine separate units. I don't think you should show any profit until you have fully recovered all your costs, because in reality, you plain just don't make a profit on this development until you have sold enough land to recover all your costs! Then the rest is gravy. I think that all income and all expense from the development should be deferred until the entire project is finished and then you can decide how much profit you made. You aren't grabbing in the dark for estimated this and estimated that, as your method does Jim. You know, for a fact, exactly how much you made on the project. This is the method my bank uses in recasting submitted corporate statements since it doesn't want to loan money to a company on the basis of unearned profits which may never be realized. As you know Roy, there is considerable risk that actual future costs will not be the same as the estimated costs, and this is *particularly* true in the construction business, and heaven only knows how far off your estimated sales prices might be!

CAMERON BENTHALL [Mr. Benthall's eldest son and Executive Vice President of Rocky Mountain]: I agree with you Bob, except that I think only the difference between the sales income and the land costs incurred should be deferred until future periods. This would mean that a deferred income or a deferred expense account would be carried until the entire Park was completed, at which time you would then recognize your actual profit or loss. We wouldn't be jumping to any conclusions in recognizing profits which we didn't make.

BRADLEY BENTHALL [Mr. Benthall's youngest son and General Construction Manager]: I can't agree with you or Bob, Cam; you're being too conservative. Your method would show no profit for two or three years, and our chance of floating a stock issue would be nil if we presented such a statement to prospective stockholders. I think a combination of methods is what we really need. I agree with Bill when he says we must recognize the profit we made on the plots which were sold in 1959. The land costs could be allocated to these plots on the basis of square footage, expected market price, front footage on an access street, or any other reasonable basis. Further, I think that these plots should also bear some portion of the general operating expenses which will be incurred during the next two years, the time we anticipate it will take to completely dispose of all the plots. It seems likely to me that these expenses will remain relatively constant during the life of the development, regardless of the percentage of completion or degree of sales saturation. Finally, I think estimated profit should be recognized on those plots which are held under a sales option contract or intended for use by the construction department. It appears likely that these options will be taken up, since land prices are constantly increasing. All costs not allocated to the plots sold in 1959, or under option, should be deferred until future years. This method would provide the most realistic reporting of earnings. The consistent use of this method will provide our stockholders and potential investors with stable revenue and earnings figures on which year-to-year operating comparisons can be based. I think this is something we should consider before we choose a method of reporting income.

MR. BENTHALL: It seems to me that the objective of a good income statement should be to match costs and revenues during a given period of time and only then can the true profitability of a firm be judged. I am not sure which of your proposed methods would do this, so I suggest we adjourn until such time as I can gather together the results which would be reported under each of your methods. We will then meet and discuss the merits of each one and decide at that time which one best fulfills our needs relative to internal reporting, external reporting, and tax reporting.

Required

1. What income would be reported under each of the proposed methods and which method should Mr. Reardon recommend to Mr. Benthall? Why?
2. Should administrative, general, and selling expenses be treated as costs of the current year, or should they be treated as other land development costs?

EXHIBIT 1

Land Development Department
Profit and Loss Statement for the Year Ending December 31, 1959

Sales revenue:

Plot number	Amount received
1	$632,000
3	158,945

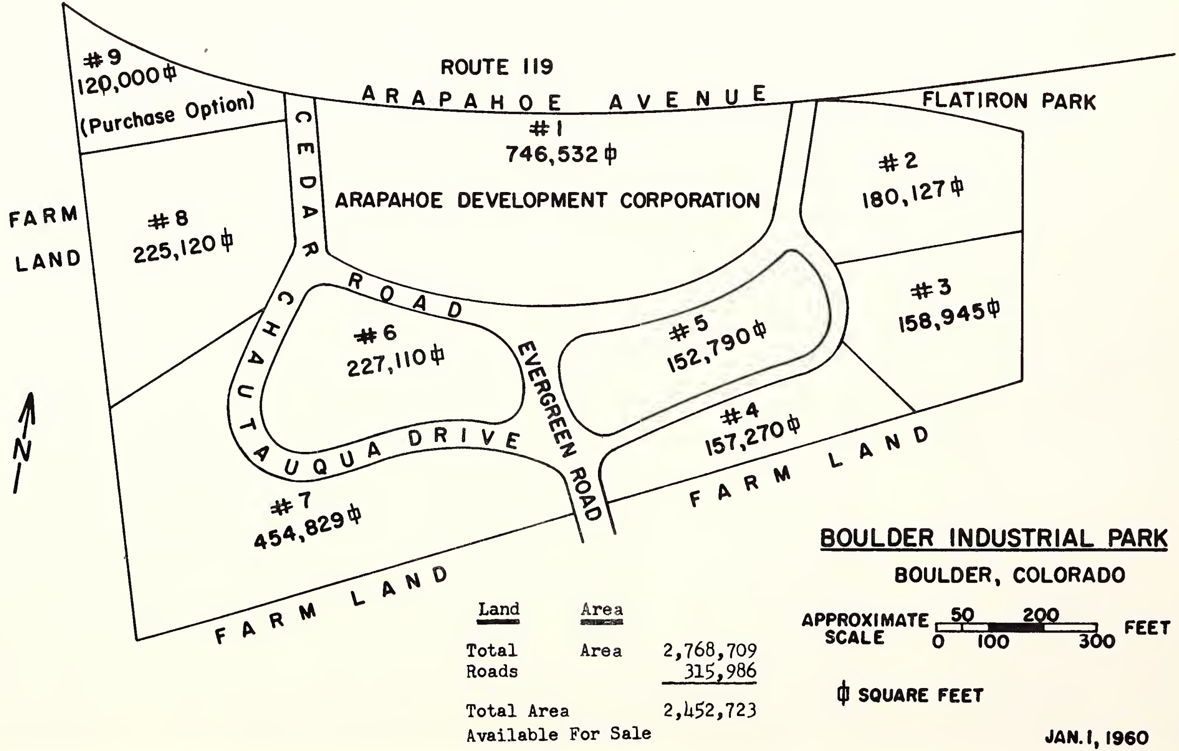
Total sales revenue	$790,945		
Other income:			
Purchase option on Plot No. 9	5,000		
Total income for period			$795,945
Less cost of sales:			
Original purchase price of land	$500,000		
Land development costs to Dec. 31, 1959 (see Exhibit 3)	299,564		
Total land costs			799,564
Gross profit or (loss) on sales:			$ (3,619)
Operating expenses:*			
Advertising		$ 475	
Commissions to outside brokers		665	
Park dedication and press conferences		1,140	
Purchase of signs and office equipment		6,226	
Inspection fees		928	
Legal and accounting (includes legal fee, title fee, and insurance premium incurred on original land purchase)		7,850	
Photographs and renderings		2,113	
Salaries—salesmen		12,695	
Salaries—office		6,620	
Salaries—engineering		3,113	
Salaries—General Manager, Land Department		10,000	
Sales commissions		3,480	
Taxes		5,315	
Direct operating expense			$ 60,620
Operating expense allocated from the construction department†			8,533
Total operating expense			69,153
Net loss for year ending December 31, 1959			$ 72,772

*All operating expenses have been computed on an accrual basis and thus include not only cash expenditures made during 1959 but also include those expenses due but not paid as of December 31, 1959. These costs were incurred directly by the land development department.

† Allocated on the basis of each department's total sales revenue. This includes heat, light, and power, rent on the office building, telephone and telegraph, and other joint expenses.

EXHIBIT 2

Land Development Department
Land Layout for Boulder Industrial Park


ROUTE 119
ARAPAHOE AVENUE
FLATIRON PARK
#9
120,000 ϕ
(Purchase Option)
#1
746,532 ϕ
ARAPAHOE DEVELOPMENT CORPORATION
#2
180,127 ϕ
#3
158,945 ϕ
#8
225,120 ϕ
#6
227,110 ϕ
#5
152,790 ϕ
#4
157,270 ϕ
#7
454,829 ϕ
CEDAR ROAD
CHAUTAUQUA DRIVE
EVERGREEN ROAD
FARM LAND
FARM LAND
FARM LAND
N
BOULDER INDUSTRIAL PARK
BOULDER, COLORADO
APPROXIMATE SCALE
50
200
0
100
300
FEET
ϕ SQUARE FEET
JAN. 1, 1960

Land	Area	
Total	Area	2,768,709
Roads		315,986
Total Area Available For Sale		2,452,723

EXHIBIT 3

Land Development Department
Part 1—Improvement Costs to December 31, 1959

	Account Classification	Actual Cost to Date			Estimated to Finish		
		Labor	Invoice	Total	Labor	Invoice	Total
500	SITE WORK*						
8	Pile driving						
10	Temporary lights						
11	Clearing	2,406	9,037	11,443			
12	Unclassified excavation	769	709	1,478			
13	Earth excavation	34	101	135			
14	Peat excavation	536	8,131	8,667			
15	Rock excavation	9,208	19,060	28,268			
16	Temporary storm ditches						
17	Temporary site work						
18	Temporary (haul) roads						
19	Gravel borrow	2,351	32,493	34,844			
	Total	15,304	69,531	84,835	-0-	-0-	-0-
520	ROADS						
21	Unclassified excavation	1,037	2,736	3,773			
22	Earth excavation	2,034	4,908	6,942			
23	Peat excavation	68	4,050	4,118			
24	Rock excavation	2,319	35,680	37,999			
25	Gravel borrow	677	15,229	15,906	562	32,438	33,000
26	Finish roadwork—subcontracted	49	37	86			
30	Granite curbing	795	4,914	5,709			
32	Loam, spread, & seed	985	965	1,950	2,400	3,290	5,690
33	Maintenance	293	311	604			
	Total	8,257	68,830	77,087	2,962	35,728	38,690
540	STORM DRAINS						
40	10" R.C. pipe	2,511	2,882	5,393			
41	18" R.C. pipe	305	1,051	1,356			
42	24" R.C. pipe	1,122	3,723	4,845			
43	Manholes, including castings	1,004	1,150	2,154			
44	Catchbasins	2,085	1,749	3,834			
46	21" R.C. pipe	32	62	94	11,320	16,860	28,180
47	15" R.C. pipe	339	1,544	1,883			
48	30" R.C. pipe	864	3,605	4,469			
	Total	8,262	15,766	24,028	11,320	16,860	28,180
550	SEWERAGE						
50	8" sewer	1,209	5,731	6,940			
51	10" sewer	1,907	14,371	16,278	8,617	17,682	26,299
52	Forced main						
53	Manholes, including castings	2,607	3,448	6,055			
54	Adjust to line & grade	94		94			
55	Pumping station					22,680	22,680
56	Maintenance of utilities	392		392	2,436		2,436
57	12" sewer		1,542	1,542	3,860	4,120	7,980
58	Exploration for 10"						
	Total	6,209	25,092	31,301	14,913	44,482	59,395
560	WATER MAINS						
61	10" C.I. pipe	2,567	19,463	22,030	3,110	30,245	33,355
62	12" C.I. pipe		295	295		4,820	4,820
63	Hydrants	125	230	355	6,500	15,977	22,477
64	8" C.I. pipe	1,072	3,689	4,761	3,700	7,400	11,100
	Total	3,764	23,677	27,441	13,310	58,442	71,752
570	OPEN DRAINAGE DITCH	5,609	28,706	34,315	-0-	-0-	-0-
580	ENGINEERING	2,204	6,508	8,712	620	1,416	2,036
590	INDIRECT GENERAL CONDITIONS	5,942	5,903	11,845	4,812	6,237	11,049
	GRAND TOTALS†	55,551	244,013	299,564	47,937	163,165	211,102

*Includes site work chargeable directly to specific plots. See Part 2 for detail.

†Includes field supervision, watchman's salary, temporary toilets, rain gear, and field telephone.

(cont'd)

EXHIBIT 3, cont'd

Part 2—Site Work Chargeable Directly to Specific Plots

Cost Classification

Plot Number	Total Site Work	511 Labor	511 Invoice	514 Labor	514 Invoice	515 Labor	515 Invoice	519 Labor	519 Invoice
1	25,840		3,012	536	896	3,740	6,579	307	10,770
3	17,069				2,741	4,313	5,820	979	3,216
5	10,466				3,500	800	420	586	5,160
9	13,911				944	355	6,241	479	5,842
Totals	67,286	0	3,012	536	8,131	9,208	19,060	2,351	24,988

Note: Charges under classifications 511,514, and 519 were for the removal of peat and dumping of gravel fill on specific plots which were not suitable for construction in raw form. Classification 519 accumulated the cost of blasting and removing a rock shelf which cropped up under certain plots.

EXHIBIT 4 Land Development Department

Plot Number	Square Footage		Front Footage		Anticipated Sales Price per Sq. Ft.	Sold to	Price Received	Comments
	Feet	%	Feet	%				
1	746,532	30.5	3,025	29.9	$1.70	Arapahoe Development Corp.	$632,000	First plot sold, sold at discount since the proposed shopping center is expected to increase other land values.
2	180,127	7.3	375	3.7	1.50			
3	158,945	6.5	200	2.0	1.20	Rocky Mountain Construction Company	158,945	All land used by the construction department is priced at a set rate of $1.00 per square foot.
4	157,270	6.5	750	7.4	1.30	Rocky Mountain expects to use this plot for plant construction at some future time.		
5	152,790	6.2	1,650	16.3	1.40			
6	227,110	9.2	1,750	17.3	1.40			
7	454,829	18.5	1,225	12.1	1.20			
8	255,120	10.4	475	4.7	1.20			
9	120,000	4.9	675	6.6	1.60	Arapahoe Development Corp.	170,000	Sold purchase option for $5,000. Option must be exercised by January 1, 1962, its expiration date.
	2,452,723	100.0%	10,125	100.0%				

CASE 26

Amos Carholtz Distillery, Inc.

Early in August 1961, Mr. David Carholtz, president and chief operating executive of Amos Carholtz Distillery, Inc., of Oakwoods, Tennessee, sat in his office pondering the results of the previous day's meeting of the board of directors. He was wondering whether or not he should submit the 1961 financial statements (Exhibits 1 and 2) to the Ridgeview National Bank of Nashville, Tennessee, in support of a recent loan request for $1.5 million, or whether he should wait until next month's board meeting in the hope of obtaining clarification of some of the preceding day's discussion. A great deal of controversy had arisen over the reported loss of $169,000 in 1961 and how this result should be reported to the bank. The controversy seemed to resolve principally around the accounting treatment of various expenses reported in the "other costs" section of the operating statement and around the question of what assets should be classified as current assets. Mr. Carholtz knew that a decision had to be reached on these matters quickly, for the company had reached a point where additional working capital was needed immediately if the company was to remain solvent.

COMPANY HISTORY

Amos Carholtz began distilling whiskey in 1880. Amos had come to Oakwoods, Tennessee, from Germany the preceding year and had decided to carry on in the family tradition of beverage manufacture. He purchased a tract of land on a high knoll adjacent to a small stream fed by a limestone spring and began to distill bourbon whiskey in an old barn behind his home. His business grew from a trickling in 1880 to a million dollar firm by 1911. He attributed this growth to the high-quality, distinctive bourbon whiskey which he produced. The quality of "Old Trailridge," Carholtz's only brand of whiskey, was claimed to be the result of the unusual iron-free spring water used in the distillation process and the aging process which took place in specially prepared fire-charred white oak barrels.

From 1911 to 1933, the years of prohibition in Tennessee, the distilling equipment lay dormant, and it was not until late 1934 that the company began to operate once again in a newly constructed building. Sales rose from $500,000 in 1935 to nearly $5 million in 1941, when the plant was converted to defense production of commercial alcohol.

In 1946, Mr. David Carholtz, grandson of Amos, took over as chief operating executive of the company. Under David Carholtz sales revenue doubled between 1946 and 1961 (see Exhibit 3). Mr. Carholtz felt that the company had grown because of the stress it placed on marketing a distinctive, high-quality, high-price product and because of its concentration on one brand of fine bourbon whiskey, Old Trailridge. The company's advertising stressed the uniqueness of the cool, bubbling spring water used in the distillation of Old Trailridge and pointed to its use of "specially prepared and cured fire-charred white oak barrels." David Carholtz thought this type of promotion had been very effective in establishing a brand image of Old Trailridge in the consumer's mind that conveyed a concept of full-bodied mellowness, camaraderie, and old-fashioned, backwoods quality.

In 1960, the company produced approximately 1.5 per cent of the whiskey distilled in the United States and thus was one of the smaller distillers in the industry. Previously, no special effort had been made to gain a larger share of the market; but at a board meeting in December 1960, a decision had been made to expand production to try to capture a larger than proportionate share of the increase in whiskey consumption which Mr. Carholtz had forecast, based on an industry research report. This report showed that the consumption of straight bourbon whiskey had increased (at the expense of blended whiskeys) from 15 per cent of total whiskey consumption in 1947 to nearly 50 per cent of total consumption in 1959. Based on this report and other industry forecasts, Mr.

Carholtz had forecast a doubling of straight whiskey consumption from 1960 to 1968. In view of this, and because bourbon whiskey had to be aged for at least four years, the board had decided to increase the production of whiskey in 1961 by 50 per cent of the 1960 volume (see Exhibit 2), in order to meet the anticipated increase in consumer demand for straight bourbon whiskey from 1964-1968.

THE MANUFACTURING PROCESS

Old Trailridge was a straight bourbon whiskey and thus, by law, had to be made from a mixture of grains containing at least 51 per cent corn and had to be aged in new (not re-used) charred white oak barrels. The process began when the ground corn was mixed with pure limestone spring water in a large vat. To this mixture was added a certain amount of ground barley-malt and rye. It was then heated slowly until the starches were converted to sugars, thus completing the "mashing" process. This mash was then pumped into a cypress fermenting vat where yeast and certain other ingredients were added. This mixture was allowed to ferment for several days until the yeast had converted the sugars into alcohol, at which time the fermenting process was complete and the mash was pumped into a distillation tower (or still) where the alcohol was separated from the "slurry," or spent mash, through a series of distillation tanks and condensers. The distilled liquid was then mixed with limestone spring water to obtain the desired proof (per cent of alcohol by volume where one degree of proof equals one-half of 1 per cent of alcohol). At this point the whiskey was a clear liquid with a sharp, biting taste and had to be mellowed before consumption. For this process, it was pumped into fifty-gallon barrels and moved to an aging warehouse. The cost accumulated in the product prior to its entry into barrels was approximately $.50 per gallon (see Exhibit 2).

MATURING OR AGING PROCESS

In order to mellow the whiskey, improve its taste, and give it a rich amber color, the new bourbon whiskey had to be matured or aged for a period of time of not less than four years (and often five or six years) under controlled temperature and humidity conditions. The new whiskey reacted with the charred oak and assimilated some of the flavor and color of the fire-charred oak during the period of aging.

Since the quality of the aging barrel was an important factor in determining the ultimate taste and character of the final product, Carholtz had his fifty-gallon barrels manufactured under a unique patented process at a cost of approximately $30 per barrel. The barrels could not be re-used for aging future batches of bourbon whiskey but could be sold to used-barrel dealers for $.50 each at the end of the aging period.

The filled barrels were next placed in open "ricks" in an aging warehouse, rented by Carholtz, or in part of the factory which had been converted into warehousing space (see Exhibit 4). The increased production in 1961 necessitated the leasing of an additional warehouse at an annual rental cost of $100,000. The temperature and humidity of the warehouse space had to be controlled since the quality of the whiskey could be ruined by aging too fast or too slow, a process determined by temperature and humidity conditions.

Every six months the barrels had to be rotated from a high rick to a lower rick or vice versa (because of uneven temperatures at different locations in the warehouse), and sampled for quality and character up to that point in the aging process. A small amount of liquid was removed from representative barrels at this time and sent to the sampling laboratory for quality inspection (usually performed by skilled tasters). If the quality of the whiskey was not up to standard, certain measures were taken, such as adjusting the aging process, to bring it up to standard. At this same time, each barrel was also checked for leaks or seepage, and the required repairs were made.

At the end of the four- to six-year aging period, the barrels were removed from the ricks and dumped into regauge tanks where the charred oak residue was filtered out and volume was measured (see Exhibit 4). On the average, the volume of liquid in a barrel declined by 30 per cent during the aging period because of evaporation and leakage. Thus a barrel originally filled with fifty gallons of new bourbon would, on the whole, produce only thirty-five gallons of aged bourbon. The regauge operation was supervised by a government liquor tax agent, since it was at this point that Federal excise tax of $10.50 per gallon was levied on the whiskey removed from the warehouse. Once the bourbon had been removed from the aging warehouse, it was bottled and shipped to wholesalers with the greatest speed possible because of the large amount of cash tied up in taxes on the finished product.

EXCERPTS FROM BOARD OF DIRECTORS MEETING, AUGUST 3, 1961

MR. CARHOLTZ: Gentlemen, I'm quite concerned over the prospect of obtaining the $1.5 million loan we need in light of our 1961 loss of $169,000. We have shown annual profits since 1948 and on much smaller sales volumes than we had this year. In fact, our net sales of $21.7 million this year is the largest in our entire history and yet we incurred a net loss for the year. I think I understand the reason for this, but I'm afraid that the loan officers at the Ridgeview National Bank will hesitate in granting us a loan on the basis of our most recent performance. It appears that we are becoming less efficient in our production operation.

MR. JAMES DOUD [Production Manager]: That's not so, David. You know as well as I do, that we increased production by 50 per cent this year and with this increased production, our costs are bound to increase. You can't produce something for nothing.

MR. ROBERT THOMPSON [Controller]: Well, that's not quite so, Jim. Granted that our production costs must rise when production increases, but our inventory account takes care of the increased costs by deferring these product costs until a future period when the product is actually sold. As you can see by looking at our 1961 profit and loss statement, our production costs only increased by $56,000 and that represents the cost of our increased sales. The largest share of the increase in production costs has been deferred until future periods as you can see by looking at the increase in our inventory account of nearly half a million dollars. I believe that the real reason for our loss this year was the large increase in other costs composed chiefly of warehousing costs.

MR. CARHOLTZ: Well, what's your explanation for the large increase in the warehousing costs, Jim?

MR. JAMES DOUD: As I said before, Dave, we increased production and this also means an increase in warehousing costs since the increased production has to be aged for several years. You just can't age 50 per cent more whiskey for the same amount of money.

MR. CARHOLTZ: But I thought Bob said that increased production costs were taken care of in the inventory account. Isn't that so, Bob?

MR. ROBERT THOMPSON: Well, yes and no, David. The inventory account can only be charged with those costs associated with the direct production of whiskey, and our warehousing costs are handling or carrying costs, certainly not production costs.

MR. JAMES DOUD: Now just a minute, Bob, I think that some of those costs are just as valid production costs as are the direct labor and materials going into the distillation of the new bourbon. The manufacturing process doesn't stop with the newly produced bourbon; why it isn't even marketable in that form. Aging is an absolutely essential part of the manufacturing process, and I think the cost of barrels and part of the warehouse labor should be treated as direct costs of the product.

MR. CARHOLTZ: Great, Jim! I agree with you that warehousing and aging costs are an absolutely essential ingredient of our final product. We certainly couldn't market the bourbon before it had been aged. I think that all the costs associated with aging the product should be charged to the inventory account. I think that most of the "other costs" should be considered a cost of the product. Don't you agree, Bob?

MR. ROBERT THOMPSON: Sure, Dave! Let's capitalize depreciation, interest expenses, your salary, the shareholders' dividends, our advertising costs, your secretary's salary—why, let's capitalize all our costs! That way we can show a huge inventory balance and small expenses! I'm sure Ridgeview and the Internal Revenue boys would be happy to cooperate with us on it! Why we'll revolutionize the accounting profession!

MR. CARHOLTZ: Now cool down, Bob. Be reasonable about this. I'm afraid I really don't see why we couldn't charge all of those costs you mentioned to the inventory account; it seems to me that they are all necessary ingredients in producing our final product. What distinction do you draw between these so called "direct" costs you mentioned and the aging costs?

MR. ROBERT THOMPSON: By direct costs I mean those costs that are necessary to convert raw materials into the whiskey that goes into the aging barrels.

This is our cost of approximately $.50 per gallon and includes the cost of raw materials going into the product such as grain, yeast, and malt; the direct labor necessary to convert these materials into whiskey; and the cost of any other overhead items that are needed to permit the workers to convert grain into whiskey. I don't see how aging costs can be included under this generally accepted accounting definition of the inventory cost of the finished product.

MR. DANIEL MOUTS [Executive Vice President of a large Nashville stockbrokerage firm]: Not to change the subject, Bob, but I don't see that we're getting anywhere on this inventory question on its own merits. In another light, Jim's proposal of increasing the value of the inventory account, has an advantage relative to our balance-sheet ratios. By increasing the value of our inventory account we will thereby also increase our current assets, and this would certainly be to our advantage in securing the loan. Our ratio of current assets to current liabilities is less than 4 to 1, whereas the industry average, on the whole, is approximately 9 to 1, and our ratio of current assets to total liabilities is only 1.5 to 1, whereas the industry average is nearer 2.5 to 1. Not only that, but our long-term debt would greatly exceed our equity if the proposed loan were added to our present balance sheet. It seems to me that a deferral of some of the aging costs to the inventory account would definitely improve our credit picture by increasing both our current assets and our equity base.

MR. CARHOLTZ: Now I really am confused! What do you mean by current assets? I thought that current assets consisted of cash and certain other assets that could readily be converted into cash in the near future, generally one year, but our aging costs certainly don't meet that definition and I'm not sure that our inventory account would fall under this classification either.

MR. ROBERT THOMPSON: That used to be the concept of current assets, Dave, but more recently the American Institute of Certified Public Accountants stated that current assets are composed of "cash and other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business." It is obvious that our inventory balance would fall under this definition, and generally accepted accounting principles recognize that inventory balances are current assets.

MR. CARHOLTZ: Well, it may be obvious to you, Bob, but it certainly isn't obvious to me! Dan, why is this current asset classification so all-fired important to you brokers and to the bankers? What does it show you anyway?

MR. DANIEL MOUTS: Well, Dave, bankers use the current ratio to help them judge whether or not the business requesting a loan will generate enough cash to make the loan repayments on their due dates. Very simply, it tells them whether or not the company is going to be able to meet its current obligations and still have enough left to repay the bank on the loan and . . . .

MR. CARHOLTZ: But, Dan, that's inconsistent! My inventory won't generate cash for several years, and it certainly won't be liquidated before it is aged. Even though part of our inventory is bottled and sold each year, an even greater quantity is produced and placed in the warehouses. You can't judge whether or not we'd be able to repay our loan by looking at our inventory account. Why, you'd be better off to look at our depreciation charges each year. What we're really liquidating is our fixed assets—

liquidating in the sense that we're using them to produce whiskey which is ultimately sold for cash. Actually, the balance we show for fixed assets is decreasing every year, as the inventory stays constant or increases. What it seems to boil down to is that the so-called fixed assets are really current and that the current assets are fixed! One of us is certainly confused on the meaning of current assets!

I think we'd better defer further discussion of this entire subject until our meeting next month. In the meantime I am going to try to get this thing squared away in my own mind. I have never really thought that financial statements had much meaning, but now I am not at all sure that they aren't truly misleading documents!

Well, let's turn next to the question of . . .

Required

1. What effect would Mr. Doud's suggestion, of charging certain warehousing costs to the inventory account (or Mr. Carholtz's statement that all such costs should be capitalized), have on the 1961 financial statements?
2. Would you recommend that Mr. Carholtz use this method of accounting in preparing the annual financial statements which were to be submitted to Ridgeview National Bank?
3. Prepare a short report for Mr. Carholtz which will help him understand the current vs. fixed assets concept. Comment on his statement that, "fixed assets are really current, and current assets are fixed."

EXHIBIT 1

Balance Sheet as of June 30, 1960 and 1961
(All figures in thousands)

	1960	1961
Current Assets		
Cash	$ 1,274	$ 316
Accounts receivable-trade (less allowance for doubtful accounts of approximately $165,000)	2,875	3,221
Inventories:		
Bulk whiskey in barrels at average production cost (no excise tax included)	3,218	3,710
Cased goods and in process, at lower of average cost or market (including excise tax)	1,910	2,000
Raw materials and supplies	400	236
Prepaid expenses	441	389
Total current assets	$10,118	$ 9,872

Fixed Assets

Assets	Cost 1960	Cost 1961	Accumulated Depreciation 1960	Accumulated Depreciation 1961	Net 1960	Net 1961	1960	1961
Cash surrender value of officers' life insurance					$ 32	$ 35		
Land	$ 30	$ 30			30	30		
Building*	1,910	2,110	$800	$853	1,110	1,257		
Factory equipment	72	72	26	38	46	34		
Warehouse equipment	35	64	24	34	11	30		
Trade-marks and brands	8	8			8	8	1,237	1,394
Total assets							$11,355	$11,266

	1960	1961
Current Liabilities		
Notes payable:		
Short-term to banks	$ 1,100	$ 1,500
Current maturities of long-term debt	230	245
Accounts payable	860	419
Accrued liabilities	199	115
Provision for federal taxes on earnings	410	
Total current liabilities	$ 2,799	$ 2,279
Noncurrent Liabilities		
Notes payable (5 1/2%) secured by deed of trust on warehouse property (less current maturities of $230,000 for 1960 and $245,000 for 1961)	3,500	4,100
Stockholders' Equity		
Common stock held principally by members of the Carholtz family	1,800	1,800
Earnings retained in the business	3,256	3,087
Total liabilities and capital	$11,355	$11,266

*In June 1961, payment was made for work which had been performed during the year in adding to and improving the warehousing space in the building owned by Carholtz Distillers.

EXHIBIT 2

Statement of Income for the Years Ended June 30, 1960 and 1961 (All values in thousands)

		1960		1961
Net Sales:				
Sale of whiskey to wholesalers. The sale of bottled whiskey in 1960 and 1961 respectively was equivalent to the sale of 43,000 and 44,500 barrels of whiskey. Because of leakage, evaporation and spillage, on the average, 30% of the bulk stock was lost between the date of production and the date of bottling. Therefore, a barrel contained only about 35 gallons of aged whiskey at the time of bottling		$21,004		$21,700
Cost of Goods Sold:				
Federal excise taxes—on whiskey sold		15,685		16,238
Cost of product charged to sales:				
Bulk whiskey inventory July 1, of respective year (125,000 and 127,000 barrels)	$3,230		$3,218	
Plus: Cost of whiskey produced to inventory (included direct and indirect materials and labor consumed in the production process. Produced 43,000 barrels at an average cost of $25.60/50 gallon barrel in 1960 and 63,000 barrels in 1961 at an average cost of $26.20/50 gallon barrel)	1,090		1,650	
	$4,320		$4,868	
Less: Bulk whiskey inventory June 30, of respective year (127,000 and 144,000 barrels at average production cost)	$3,218	1,102	$3,710	1,158
Cased goods and in process July 1 of respective year	$2,050		$1,910	
Cased goods and in process June 30 of respective year	1,910	140	2,000	(90)
Other Costs Charged to Cost of Goods Sold:				
Cost of barrels purchased during year (45,000 barrels @ $31.00 per barrel and 64,000 barrels @ $31.50 per barrel)	$1,400		$2,020	
Depreciation on building (one-half of building used for storage of barreled whiskey)	53		53	
Rent on adjacent building used for whiskey storage*	70		170	
Labor cost of warehousemen and warehouse supervisor	97		167	
Heat, light, power (rented warehouse)	28		49	
Heat, light, power (owned building)	51		53	
Miscellaneous maintenance and supplies expense incurred by warehousing operation	31		57	
Labor and supplies expense of chemical laboratory	68		83	
Insurance on owned building	16		22	
Insurance on rented warehouse(s)	7		21	
Taxes on building	13		21	
Depreciation on factory equipment	12		12	
Depreciation on warehouse equipment	6		10	
Cost of government supervision and bonding facilities	3		7	
Cost of bottling liquor (labor, glass, and miscellaneous supplies)	210	2,065	193	2,938
Total cost of goods sold—respective years		$18,992		$20,244
Gross profit from operations		2,012		1,456
Less: Selling and advertising expenses	$ 910		$1,161	
Administrative and general expenses†	350	1,260	464	1,625
Net profit (loss) before tax		$ 752		$ (169)
Less: Income tax		290		0
Net profit (loss) after tax		$ 462		$ (169)

*The increase in production in 1961 necessitated the rental of additional warehouse space.

†The increase in this expense from 1960 to 1961 was principally caused by increased interest payments on the additional notes payable issued in 1961 to help finance the increase in production.

EXHIBIT 3

Ten-Year Record
For Years Ending June 30, 1952 - June 30, 1961
(All values in thousands)

	1961	1960	1959	1958	1957	1956	1955	1954	1953	1952
Net sales*	$21,700	$21,004	$19,414	$19,000	$17,000	$16,400	$16,450	$18,331	$18,648	$17,226
Cost of sales	20,244	18,992	17,756	17,614	15,750	15,600	15,580	16,610	16,866	15,050
Selling and advertising expenses	1,161	910	840	760	682	620	505	868	771	315
Administrative and general expenses including income taxes	464	640	513	396	364	130	219	485	563	933
Net income after tax	(169)	462	305	230	204	50	146	368	448	930
Inventories†	5,946	5,528	6,003	5,752	5,250	5,325	5,050	5,100	4,997	4,365
Total current assets	9,872	10,118	11,020	10,425	9,296	9,085	10,020	10,430	10,210	8,650
Total assets	11,266	11,355	12,780	11,950	10,837	10,502	11,480	11,896	11,572	9,725
Total current liabilities	2,279	2,799	2,880	2,450	1,264	1,613	2,040	2,462	2,065	1,130
Total liabilities	6,379	6,299	5,635	5,000	4,000	4,009	4,700	5,215	4,898	3,486

*Excise taxes of $10.50 per tax gallon are included in Sales.

†Included barreled whiskey (at average cost), cased goods and in process at lower of cost or market, and raw materials and supplies. Approximately 80% of the amount was composed of barreled whiskey.

EXHIBIT 4

(a) Whiskey Barrels on Open Aging Ricks

(b) Fully-aged Barrels Being Processed in the Regauge Room

CASE 27

Beale Company

Early in November 1955, the new president of the Beale Company was eagerly awaiting completion of the profit and loss statement for October. He knew that October sales had exceeded those for September by more than $50,000, and he was anxious to see how much of this increased sales volume was reflected as extra profit. But when the report came in, it showed an over-all loss of $5,015 (Exhibit 1) as compared with a September profit of $3,509. The president immediately thought some mistake had been made and called in the controller for an explanation. The controller said the figures were correct, but that in October the company had not produced anywhere near its normal volume and hence the charge for unabsorbed burden had decreased the profit more than the added sales had increased it. He said that if the rate of sales were always the same as the rate of factory production, the kind of distortion that was bothering the president would not appear. However, when the factory operations were out of phase with sales operations, such distortions were almost certain to result as long as the company followed the commonly practiced accounting convention of charging or crediting periodic over- or under-absorbed factory overhead to the current profit and loss account.

The president reacted strongly to the controller's explanations: "I don't care a hoot for your accounting conventions. But I do know this: when our sales go up, with other things reasonably equal, I am going to expect my profit to show an increase. If your reports can't show so simple a thing as that, why do we spend so much money on your department?"

As a matter of fact, the controller had been thinking about much the same problem that disturbed the president, but from a slightly different angle. Accordingly, he seized the opportunity to propose a radically different approach to the problem of overhead: *charge the fixed overhead costs for the month to the current operating statement in a lump sum* just as is commonly done in the case of selling and administrative expenses. Thus there would be no problem of heavy over- or under-absorbed overhead as the volume of operations changed. Cost of Goods Sold, of course, now would reflect only the nonfixed factory costs, that is, variable costs, which the controller called "direct costs."

As an illustration, the controller reworked the company's figures for October, with the startling result that the former loss of $5,015 was turned into a profit of $11,028 (Exhibit 2). When this figure was shown to the president he first exclaimed, "That's more like it." Then he hesitated and started to speculate: "But this means more taxes and more demands for wage increases and dividends and what-all. Maybe your idea isn't so good after all."

The controller was in favor of the new plan largely because of its simplified accounting procedures. For one thing, there would be no fixed overhead costs in the standard cost figures for different products but only the three classes of "direct costs":

(a) The cost of raw materials;
(b) Direct labor;
(c) The portion of the outlay for manufacturing expenses which varied directly or closely in proportion to productive activity.

Omission of fixed overhead costs from the individual product costs would mean that the vexing and expensive task of working out an acceptable allocation of overhead to each product would be unnecessary. Inasmuch as many of these prorations had in fact become out of date, the controller was further attracted to his plan by the possibility that the expense of the needed overhauling of the figures might be avoided.

The controller also believed the proposed system would greatly sharpen the focus of management on the *controllable* portion of costs by spotlighting the variable elements. Standards for the variable costs incurred by the different departments at different levels of output could be worked out by engineering methods. Since the fixed costs pertaining to factory operations tend to fall into quite a different category from that of the variable costs, they should be segregated anyway. By way of analogy he suggested that, like a retail store, a manufacturing company "purchases" its product for a known "direct cost." Consequently, the chief difference between the two kinds of business is that to make a profit the manufacturing company has to pay the fixed factory costs in addition to the selling salaries, administration costs, storage, and so on. Furthermore, the fixed factory costs are like the occupancy costs (rent, maintenance, and so on) of a retail store. On such a basis the factory's "direct costs," that is, variable costs, are similar to the retail store's "cost of purchases."

The controller argued that a further advantage of his proposal would be the provision of a more satisfactory basis for making the usual monthly comparison of margin figures in the company's product-by-product *Gross Margin Statement.* When recast in the new form (with fixed costs excluded), the figures would be much more meaningful than at present. The new margin figures would be, of course, much higher all down the line, but once the management adjusted its thinking to the new basis, the controller was confident that the value of knowing how much each product was contributing to fixed costs and profit would be greatly appreciated.

One of the sales executives supported the controller's argument on the usefulness of the new margin figures. He pointed out, for example, that if there were two products sold by one of his divisions, Products A and B, and if the situation were as described in the following example, Product B, in general, would clearly appear to be the more desirable item to sell.

Product	*Total Factory Cost per Pound (std.)*	*Selling Price*	*Margin*	*Per Cent of Sales*
A	$ .897	$1.55	$ .653	42.1
B	1.015	1.80	.785	43.6

But if the new margin figures were to work out something as follows, then Product A was by all odds the product on which the company's selling effort really should be concentrated:

Product	*Variable Factory Cost*	*Selling Price*	*New "Margin"*	*Per Cent of Sales*
A	$ .413	$1.55	$1.137	73.6
B	.809	1.80	.991	55.6

The controller's proposed method of keeping records, the sales executive reasoned, would thus reveal the true opportunities for profit. He cited one company he knew that had so redirected its selling effort that in less than eight months it had shifted from an operating loss to an operating profit and had maintained good profits ever since.

At this point in the discussion, the treasurer entered the argument. He observed cynically that if the example cited was typical of the Beale Company, the first thing anyone knew, the sales department in its efforts to get business would be selling at its usual markup over the new standard cost figures (variable costs only). "When that time comes," he snorted, "how are we going to cover the fixed costs? Where do we get our capital replacements? We'll have to pay the piper sooner or later."

Turning to the controller, who had talked of the desired focus of the new system of variable costs, the treasurer gave as his opinion, based on long experience, that it was the lack of control of the long-run costs that really wrecked a company. "You can make mistakes on the direct costs," he said, "but because things in this area are constantly changing and because one never makes much of a commitment anyway, the life of the company is really not prejudiced. If necessary, a new management can quickly reverse the trend. But once a company lets the long-run costs get out of control, then the fat really is in the fire. I'm opposed to anything that leads us to take a short-sighted view of cost." To this argument the controller had little to say, except that it was a matter of emphasis, and that he still thought the variable costs the most important.[1]

All the group discussing the proposal were aware of the effect of the controller's scheme on the inventory item in the balance sheet. The treasurer, and the president too, were worried about this effect, and both wondered if the possible improvement to the operating statement was worth the price of distorting the balance sheet. The controller proposed that a footnote be carried in the balance sheet calling attention to the matter, and perhaps indicating the extent of the distortion. Balance sheets by the company are shown in Exhibit 3, together with an indication of how the balance sheet figures would appear had the company used the "direct cost" method. Income statements for September, under both the present and proposed methods are shown in Exhibit 4. On this exhibit, nomenclature and arrangement have been changed somewhat in order to facilitate comparison between the present and proposed systems.

When one of the officials asked about the Federal income tax implications, the controller pointed out that the tax return was a special report, that it already differed from the company's operating reports in several respects, and that the reports he was suggesting were monthly profit estimates largely for internal use and not annual reports. Furthermore, if the company wished to do so, the annual reports could be computed on the more orthodox basis. "But," he insisted, "let's make these monthly reports so that they help us, not handicap us."

Required

1. What do you recommend?
2. What would be the effects of the controller's proposal on the balance sheet?

---

[1] Variable costs were 67 per cent of total costs in 1954.

3. Approximately how busy (relative to normal volume) was the factory in October?
4. Could the problem in the case ever arise with respect to *annual* statements of profit?

EXHIBIT 1

Condensed Income Statement
Month of October, 1955

Sales	$336,903	
Cost of sales at standard	178,168	
Gross margin above standard costs		$158,735
Less manufacturing variances		
Labor	$ 4,321*	
Material	3,972	
Overhead		
Volume	26,870	
Spending	1,347	
		27,868
Gross profit		$130,867
Selling costs:		
Selling expenses	$ 84,514	
Sales taxes	3,236	
Freight allowed	7,195	
Total selling costs		94,945
Operating profit before administration costs		$ 35,922
Administration costs:		
General administrative expenses	$ 20,640	
Research expenses	5,879	
Total administration costs		26,519
Operating profit		$ 9,403
Other income or charges		14,418
Loss, current month		$ 5,015

*Credit variance.

EXHIBIT 2

Condensed Income Statement (proposed style)
Month of October, 1955

Sales		$336,903	
Standard "variable" cost of sales		123,133	
Gross margin above variable costs			$213,770
Selling expenses:			
Selling expenses		$ 84,514	
Sales taxes		3,236	
Freight allowed		7,195	
Total selling expenses			94,945
Merchandising margin			$118,825
Administrative expenses:			
General administrative expenses		$ 20,640	
Research expenses		5,879	
Total			26,519
Additional factory expenses:			
Fixed factory overhead		$ 65,862	
Manufacturing variances:			
Labor variance	4,321*		
Material variance	3,972		
Overhead variance (spending)	1,347	998	66,860
Operating margin			25,446
Other income or charges			14,418
Profit, current month			$ 11,028

*Credit variance.

EXHIBIT 3

Condensed Balance Sheets as Actually Prepared

Assets	As of September 30, 1955	As of October 31, 1955
Current Assets		
Cash	$ 80,560	$ 95,553
Accounts receivable	150,428	178,610
Inventory	573,630	521,822
Total current assets	804,618	795,985
Plant and equipment (net)	2,120,450	2,108,788
Total assets	$2,925,068	$2,904,773
Liabilities and Net Worth		
Current liabilities	$ 397,480	$ 382,200
Mortgage payable	560,000	560,000
Total liabilities	$ 957,480	$ 942,200
Net worth		
Capital stock	1,000,000	1,000,000
Retained earnings	967,588	962,573
Total net worth	$1,967,588	$1,962,573
Total liabilities and net worth	$2,925,068	$2,904,773

Effect of "Direct Cost" Method

Had the Beale Company used the direct cost method, its balance sheets would appear as above except for the Inventory and Retained Earnings items. These would appear as below:

	As of September 30, 1955	As of October 31, 1955
Inventory	$ 401,541	$ 365,776
Retained earnings	$ 795,499	$ 806,527

Note: In both present and proposed statements, the effect of income taxes is shown. The Beale Company recorded estimated income tax expense only at the end of the calendar year.

EXHIBIT 4

Condensed Income Statement
Month of September 1955

	As Actually Prepared	Under Proposed Method
Sales	$283,028	$283,028
Cost of sales at standard	152,604	104,662
Gross margin	$130,424	$178,366
Less manufacturing variances		
Labor	5,426*	5,426*
Material	5,081	5,081
Overhead		
Volume	447*	---
Spending	2,173	2,173
Fixed factory overhead	---	65,862
Subtotal overhead and variances	$ 1,381	$ 67,690
Profit before administrative & selling expenses	$129,043	$110,676
Selling expenses (total)	$ 85,482	$ 85,482
Administrative expenses (total)	26,026	26,026
Total administrative & selling expenses	$111,508	$111,508
Operating profit	$ 17,535	($ 832)
Other income charges	14,026	14,026
Net profit or loss current month	$ 3,509	($ 14,858)

*Credit variance.

CASE 28

The Bayard Nail Company

The Bayard Nail Company, dating back to 1875, produced nails, findings, blacking, polish, and cement for the shoe manufacturing industry during most of the period from 1900-1930. However, by 1956, the company operated only a nail factory in Worcester, Massachusetts, producing several lines of nails, with about 50 per cent of sales going to the shoe trade. In 1956, the owner-president, Mr. Bayard, sold the firm with its machinery, equipment, and inventories to a group of investors led by Mr. Steel. Mr. Bayard retained ownership of the building and land but granted the new owners a five-year lease and an option to buy at less than appraised value.

Mr. Steel, prior to his purchase of Bayard, had served as a director of American Shoe Distributors and some other organizations in which he had invested. American Shoe Distributors had been organized a few years earlier to distribute various supplies to the shoe manufacturing industry, following the antitrust action against United Shoe Machinery Corporation which restrained the latter corporation's distributing activities. Mr. Steel's belief that American Shoe Distributors needed a dependable supply of nails had led to his purchase of Bayard. In addition to Mr. Steel, the following persons invested in and assumed management responsibility at Bayard: Mr. Richards, a partner in a Boston public accounting firm; Mr. Adams, a former production engineer for a Mussachusetts shoe-nail manufacturer; and Mr. Johnson, formerly plant superintendent for another shoe-nail manufacturer.

OPERATIONS—FIRST FISCAL YEAR

Most of the funds provided by the new owner-managers were used to pay Mr. Bayard, so an arrangement was made with a large Boston bank to extend credit to Bayard up to 75 per cent of their accounts receivables other than those from American Shoe Distributors. Credit was not extended against the American account (representing 50 per cent of Bayard's sales and receivables) because the bank was not satisfied with financial and operating figures at American.

In the Fall of 1956, immediately after the new management took control, the company was faced with several adverse developments: a slump in demand for nails with intense competition holding prices down, increased raw material costs, and inefficiencies in production caused by changes in methods. During the subsequent winter, when orders increased, production could not be expanded quickly enough to take full advantage of the larger volume.

During this early period detailed financial statements were not available, but management believed that they were operating at a slight loss. Several months after closing the books at the end of the third quarter on May 31, 1957, operating statements became available indicating a loss of about $10,000. This was not considered serious because of the abnormal market conditions. However, cash was tight and payables were long overdue.

In November 1957, audited statements became available for the first year of operation ending, August 31, 1957, and indicated to management surprisingly poor operations. Mr. Richards had believed the loss would be much lower because he had overestimated ending inventory (see Exhibits 1 and 2).

Mr. Richards re-examined his earlier statements to check on what appeared to be a disastrous fourth quarter. He decided that about $15,000 was actually lost during the fourth quarter rather than the $75,000 indicated by the statements. To account for the poor operating results he prepared a statement of analysis of losses (Exhibit 3) in which he attributed much of the losses to nonrecurring expenses.

During the first year of operations additional capital had been raised to pay Mr. Bayard the final installments on the purchase price of the company. These funds were obtained (a) through a $35,000 subordinated loan from the officers, (b) through a ten-year, 6 per cent loan from the SBA for $60,000, secured by all machinery and equipment and requiring monthly amortization, (c) by pledging their foreign tack inventory to a local bank which allowed credit up to ⅔ of cost if stored in public warehouses, and (d) by selling an additional $80,000 worth of common stock.

In September 1957, the competitive situation permitted an increase in prices of about 7 per cent and, since operating costs had been reduced slightly, Mr. Richards believed they were operating at about the break-even point and that the worst was over. The Boston bank, while concerned over the operating results of the first year, had high regard for Bayard's management and were willing to maintain their loan agreement.

PRODUCTS

There were four major product categories within the Bayard line of nails. Over 1000 different combinations of heads, sizes, points and other variables existed in each line. The major category was nails for shoe manufacturing and repair businesses and represented about 50 per cent of total sales. These nails were used chiefly to fasten rubber and leather heels in shoe construction and repair. A second category was building and construction nails. Although large steel companies produced most common building nails, 15 per cent of Bayard's sales came from special purpose nails, such as flooring and masonry nails. About 15 per cent of sales came from industrial specialties representing nails for construction of boxes, pallets, beer cases, and pins and clips for general fastening purposes. About 20 per cent of sales came from assorted nails distributed through variety chains, supermarkets, and hardware stores.

Competition existed in the form of many large and small, domestic and foreign, nail-making firms, but no one firm competed seriously in all lines. For example, the large volume, common building nails produced by Bethlehem Steel Company and American Steel and Wire Company were not in direct conflict with Bayard's specialties. However, there were many smaller firms producing some of the types of nails produced by Bayard. A final form of competition was represented by other fastening methods, such as adhesives, which were used in sole fastening where nails were formerly used. There was a common belief in the shoe business that eventually adhesives could be developed for heel attachment purposes.

PRODUCTION

Special forms of the steel wire nail were the basis of all Bayard production. Production originated in the nail making department where steel wire was forced through a die for about ¼″, flattened to form a head, then passed on through for the length of the nail and cut and pointed. This operation was performed on many small automatic machines requiring tenders only to load wire and to adjust and oil machines. The rough nails were then tumbled in hardwood sawdust and cleaning solution to deburr, polish and degrease. Cleaned nails were then inspected and packed, unless they required a finishing operation, such as rolling, plating, or coating. Since August 1956 the nail making machines had worked an average of 40 per cent of full three-shift capacity, and the other departments had worked 1-2 shifts.

The plant consisted of five floors, the lower four of which were used for manufacturing. Production began with the movement of wire from storage in the basement to nail machines in the basement or at the ends of the first floor. The tumbling department was located in the center of the first floor, the finishing operations on the first four floors and packing on the first three floors. Finished production was stored on all five floors. Although all the machines were old, they operated much the same as new models.

All orders received by the sales office were recorded on a shipping copy which was sent directly to the shipping office if the order was for stocked items. Nonstock orders were copied into a production order and a shipping order. All production orders were handled by Mr. Adams, who made out a cutting order specifying the wire to be used, the type and quantity of nails to be produced as well as the machine and operator to cut the nail. Mr. Adams assigned the work on the basis of the nail's complexity, and the nail maker's skill, workload and experience. From the cutting order a clerk made out a group of production cards for the order—one card for each tote box (75 lbs) needed to fill the order. These cards carried the same information as the cutting order with an additional section specifying routing to secondary operations, if any.

The production cards were given to the nail maker as the work assignment. The nail maker ordered wire from the stock room and tools from the tool room for the job. The cutting order was placed on a "control board" arranged by nail machine. This board provided a running record of orders in the plant and their stages of completion—as each tote box was filled, a stub from its production card was sent to the production office and posted on the control board. When the tote box was packed and sent to shipping, the remainder of the card was sent to the production office.

Production superintendent Johnson controlled the inventory levels of stock items. When stock items were worked down, a cutting order was made for each item to be produced and assigned to a nail maker who produced this item and posted a production card for each tote box finished until Mr. Johnson gave him a new assignment. These production cards were also posted on a control board to provide Mr. Johnson with a check on actual quantities being produced. When Mr. Johnson believed there was enough on hand he gave the nail maker a new assignment and the items were placed in storage to await shipment.

All production records were kept in pound figures and totaled by the production and accounting offices. For example, each tote box completed was weighed by the nail maker and its weight recorded on the production card; all issues from stock, chiefly wire rolls, were recorded in terms of number of reels of wire, extended at a standard weight; all shipments were weighed and recorded on shipping slips and bills of lading; and all scrap was recorded by weight.

Management believed, however, that there were some inaccuracies in these records. For example, reels of wire issued to the floor were not always completely recorded and the standard weights for reels of wire were not exact; and the tote pans used to carry nails were of two types and the recorded weights of these pans, when full, did not always reflect the weight differences between the two types of pans.

ACCOUNTING

The accounting department collected labor, material and overhead costs by departments monthly for the determination of inventory values and profit. Exhibit 4 indicates the procedure used to charge overhead through service departments to productive departments. The totals of actual overhead and labor charged to each department monthly were distributed to the pounds of production processed in each department, except that three overhead expenses (rent, general insurance, and depreciation) were considered fixed costs and were excluded from the unit cost computations. The fixed costs were deducted, however, as a period charge from the monthly cost of goods sold figures.

The major task of the accounting staff was to trace production quantities and costs through the productive departments. The manner in which this was done, both monthly and annually, is described below. The steps in this procedure may be followed by comparison with the worksheets for August 1958, which appear as Exhibits 5 and 6.

Monthly Procedure. The company's books were closed monthly and annually by separate procedures. The monthly closings occurred outside the regular books of accounts and were designed to provide quick, reasonably accurate statements. The major element in the monthly procedure consisted of determination of departmental labor and overhead costs and the value and quantities of inventory and production.

In the nail-making department beginning wire inventory was assumed to remain constant at the amount existing when the company was purchased in 1956; and the same wire was assumed to remain in inventory at the weighted average invoice price of the wire at the time of the 1956 purchase. Wire on or at machines was also assumed constant monthly at an estimated 12,000 pounds (50 per cent completed) but was valued at current material prices plus the labor and overhead cost per unit of production for the preceding period. (The determination of labor and overhead cost per unit of production is described below.)

The value and pounds of beginning wire inventories were added to pounds and value of wire sent to the floor during the month. These figures were determined from stock room records of issues valued at weighted average invoice price. Total labor and overhead for the nail-making departments were then added to arrive at total pounds and cost of inputs.

Ending work in process consisted of the constant pounds and dollar value of wire stock plus wire on and at machines which was a constant pound figure valued at current weighted average invoice price and a labor and overhead charge determined by multiplying one-half of the constant pound figure (50 per cent complete) by an average labor and overhead cost per unit. This unit cost was obtained by dividing total pounds input into total departmental labor and overhead costs. The value and quantity of ending work in process was subtracted from the input figures to determine the transfer to the roller department.

In the roller department the ending inventory of work in process for the preceding period was added to transfer figures from the nail-making department. This sum was added to the actual labor and overhead for the roller department to get total pounds and cost of inputs. Inspection of nails occurred for the first time at the end of the rolling operation and all scrap was weighed and recorded, and then removed from the pounds input figure. Then, by subtracting the pounds finished and transferred from the roller room (recorded in production report) the ending work-in-process quantity was arrived at. This inventory was valued at the average cost of material available to the roller room during the period, plus a charge per pound for labor and overhead in the roller department (assuming again 50 per cent completion). Then the pounds and cost of work in process were removed from total inputs to obtain cost of transfers.

All nails from the roller department were transferred to finishing departments which were treated as one cost department. It was assumed that no inventory remained in these departments since the production cycle required only a few hours. A labor and overhead charge was developed, however, and applied against all transfers to indicate the cost and pounds of total production for the period. These two figures were used to determine the average unit cost of production.

Cost of goods sold was determined monthly in the following manner: the average unit of cost of production was used to cost sales for material, labor and variable overhead if production exceeded sales; the excess of production was added to finished inventory at its average cost; and a new average cost of finished inventory was determined. If sales exceeded production, the finished inventory draw-down was added at its average cost to the cost of production for the month. Finally, fixed overhead costs and an estimated cost of shipping containers were deducted to obtain a total manufacturing cost of goods sold.

Annual Profit Determination. Annually, an average total unit (per lb) manufacturing cost (the costs in Exhibit 4) was calculated to value ending finished inventories which were determined by a physical count. Total manufacturing costs, less packing and shipping department expense, were divided by total pounds worked on to obtain this unit cost. Total pounds worked on was determined by adjusting the total transfers from the roller department for beginning and ending inventories of work in process at estimated stages of completion (Exhibit 6).

The unit cost figure was applied against three classes of nail inventories: packed, loose, and in process (latter adjusted for per cent completed). Each class was then charged with an average wire cost plus freight-in and an estimated scrap factor. Then, packing expenses were allocated to total goods packed and charged against packed ending inventory and sales. All other inventories (e.g., wire, packing materials, and supplies) were counted by physical inventory and valued at actual or average actual cost.

Goods sold were costed at their unit manufacturing cost, average wire cost and their share of packing costs and supplies. The cost and quantities of the year's production were added to the cost and quantities of beginning inventory to determine new average unit costs for ending finished inventory and cost of goods sold figures.

CHANGES IN ACCOUNTING SYSTEM

During the second year of operations, the new management of Bayard was thinking of making several changes in the company's accounting system. One of these proposals was based upon management's desire to trace inventory through the individual finishing departments. Another was based on the desire for some standard cost data on different lines of nails.

The inventory control of finishing operations was not detailed yet, but management planned to follow similar procedures to what they were doing in the nail making and rolling departments. The standard cost data was to be based on historical performance in the following manner: Different nail lines were identified and the average number of nails per pound for each line would be determined; the machines used for different nails would be determined and the output of these machines in lbs/hr would be estimated from recorded production data. Then, the machine hours per 100 lbs. would be calculated for the nail-making and rolling departments. A standard departmental cost rate per machine hour could then be determined by dividing total recent average labor and overhead for the department by the machine hours utilized during the same period. Then a standard cost per cwt. of each line could be determined by multiplying standard hours per cwt. times departmental rates. This same technique was to be applied to finishing operations, but inadequate historical data was temporarily preventing any action. However, data was being collected for future use.

Management believed that these standard costs would be useful for the determination of unprofitable items in their product line, and as a basis for pricing new products.

OPERATIONS–SECOND FISCAL YEAR

During the first six months of operations for fiscal 1958 ending February 28, the Bayard Nail Company lost $6,000 bringing the total for the first 18 months of operation to slightly over $91,000 (Exhibit 7). Although creditors were concerned over the balance sheet figures and slow payments, the improved income statement had provided hope that they would be paid eventually. Mr. Steel had not been successful in obtaining substantial additional equity financing and was negotiating with the SBA for an additional $40,000.

In response to a drop in sales volume during the early months of 1958, the management switched operations to a one-shift, three-day-week basis to bring inventories into line with reduced demand. Management also altered their sales relationships with American Shoe Distributors, offering a net 5 per cent commission instead of the former gross 15 per cent, and Bayard handled the receivables. In addition, Bayard assumed more selling and servicing activities by increasing its sales force to five men. This latter change in policy resulted from management's general dissatisfaction with the sales effort and ability of American. By assuming the receivables Bayard increased its borrowing based on receivables by about 100 per cent. Management also increased direct mail advertising and sales supervision. During the last half of fiscal 1958 Bayard company's sales increased, reaching $73,000 in August, and profits were recorded in June, July, and August 1958.

During the winter of 1958 two students of business, introduced to the firm through an accounting research project, were given permission to prepare the profit and loss statements for December, January, and February and for the six months ended February 28. Excerpts from their report on this project follow:

> ### Closing the Books
>
> Problems occurring in the preparation of the profit and loss statements and balance sheets were found to be roughly of four types. The first of

these concerned closing the books. Specifically, we found that trial balances tended to be late. This was of little consequence for the December and January statements because we did not get to work on these until the beginning of February and the end of February respectively. However, it showed itself to be a problem in the preparation of the February statements. By this time, we had caught up and were ready to start work on February as soon after the last day of the month as the trial balances were ready. However, they were not available until the middle of March, thus precluding the February statements being available to a creditor who was asking to see them by the middle of March.

Tardiness of the trial balances is not to be taken as an indication that the bookkeeper is not doing her job. Rather it is further evidence of the heavy work load placed on the company's office staff. To correct the situation would require an addition to the staff, which Bayard's financial condition prohibits. Hence, we feel that the company will continue to have to live with this problem.

A second problem in closing the books, and one that is much more serious than late trial balances, is that factory production records to date have not been accurate. On average reported monthly factory production of 280,000 pounds, input and output figures failed to reconcile during December, January, and February by from 12,000 pounds to 70,000 pounds. It was necessary, in each statement we prepared, to guess the relative validity of various production figures, and on this basis to reject one of them in favor of a plugged figure, in order to strike a balance. As can be seen, this problem cuts across all the areas inherent in our four centers of attention, and will be gone into in greater detail later in this report.

VALUING INVENTORY

The second of the four types of problems confronting us was that of valuing inventory. This is an extremely critical area for the company in that inventories constitute about 60 per cent of their total assets. Any significant change in inventory value can spell the difference between being able to continue operations and having to go out of business. For example, in preparing the statements for the six months ending February 28, 1958, we had available to us two possible costs per pound for finished goods inventory. The difference between them was $.02 per lb, yet one produced a $22,000 loss for the period, while the other reduced this to $6,000. Mr. Richards intends to take the February statements to the Small Business Authority to support his request for a $40,000 loan. If the statement showing the $22,000 loss had been taken, the SBA would be confronted with a firm that had lost 63 per cent of its equity in its first year of operation and had dropped 38 per cent of its remaining year-end equity during the first six months of its second year. It is extremely unlikely that the SBA would consider any further loans. Rather, it seems more likely that it would become somewhat nervous about the $56,600 outstanding on its present loan to the company. On the other hand, if Mr. Richards were able to show them only a $6,000 loss, this would indicate that the company had been able to reduce its loss rate to 9.8 per cent of its remaining first year equity. Since this had been done in the face of an extreme recession in the shoe industry (Bayard's major customer), it is likely that the SBA would consider favorably the loan request.

The two methods of valuing finished goods inventory available to us for the February statements were derived as follows. (a) The first was derived by combining departmental production and cost records to produce departmental costs per thruput pound. A physical inventory was then taken and segregated into portions dependent upon the departments through which these portions had flowed. The portions were then costed at the sum of the thruput costs per pound of the departments involved. For example, plain nails bore only the costs of the nailmaking and rolling departments plus material costs ($17.18) while threaded nails bore an added $2.11 for the threading department. By this method, inventory was valued at $205,000. (b) The second method was to extend the total pounds of finished goods at the average cost of production for the six-month period (9/1/57–2/28/58) as determined by a calculation similar to that used to determine CGS in the monthly procedure (see Exhibit 10). Using this method, inventory was valued at $221,000.

The first of these methods, that of segregating finished goods by the types of operations performed on them, would seem to be an excellent way of overcoming mix problems that are inherent in the average cost method. Under the averaging procedures of both the monthly and year-end methods, distortions would occur in both CGS and Finished Goods if there were any material differences between the mix of product produced, the mix of product sold, and the mix of product in finished goods inventory. We felt, however, that this could be overcome if there were segregation of inventory. The segregation using this method is not complete enough, however, to take care of the problem. Rather, it continues to distort the statements. One of the reasons for this is that this method assumes that all the pounds of product that go through a given department require the same amount of departmental effort. This, unfortunately, is not the case. For example, it does not take as long to thread a pound of building nails as it does to thread a pound of small shoe nails, simply because a pound of wire can make more small nails than large ones and the threading machines run at a fairly constant speed per nail. . . .

. . . .

Because of the noted inaccuracies of the segregation method of inventory valuation, Mr. Richards requested that we recalculate the statements for the six-month period ending February 28, 1958 using, instead, the six-month average cost of production. He had hoped that the segregation method would yield a more accurate valuation, but from the results, it was apparent to him that it was not as valid as the averaging method. In addition, he felt that for purposes of creditor examination, the averaging method would yield statements that were comparable with those of August 31, 1957 when a very similar averaging method had also been used.

PRODUCTION RECORDS

The third of the four types of problems confronting us in the preparation of the profit and loss statements and balance sheets was that of being able to place very little faith in the company's production records. This has been alluded to as contributing in large part to our difficulties in closing the books and in valuing inventory. It became particularly troublesome in the recalculation of the six-month profit and loss. In order to determine the six-month average cost of production, it was necessary to know the amount of wire issued to the floor, the beginning and ending work-in-process inventories, and the transfers to finished goods. Column I of Exhibit 9 shows an attempted production and inventory reconciliation statement based on figures available from factory production records and from beginning and ending physical inventories. Column II show the figures that were finally decided upon for use in the statements.

As can be seen from Exhibit 9, beginning wire inventory plus inputs less outputs would not balance with either the ending book or physical inventories. Beginning finished nail inventory, plus production (cut and rolled), plus returns, less shipments and scrap failed to agree with the ending physical inventory of finished nails. The material reconciliation calculation indicated a work-in-process inventory draw-down of 27,300 lbs; yet a comparison of beginning and ending physical inventories indicated a draw-down of 73,800 lbs.

To produce an average production cost calculation from this conflicting data, it was necessary to examine the individual items and to make judgments about their probable accuracy. Starting with the raw material portion, it was decided that the beginning and ending physical inventories were likely to be correct since Mr. Richards had personally supervised the counts. Since it was impossible to get a double check on the factory records of issues to the floor, factory receipt records were verified by an adding machine tape of the pounds shown on suppliers' invoices for the period. It was then possible to plug the issues figure and to be reasonably confident of its validity.

The next step was to use the derived issues figure in the material reconciliation calculation to bring into balance the indicated and actual work-in-process draw-downs and thus plug the production (cut and rolled) figure. From here, it was possible to attempt to reconcile the finished nail production and inventory.

Nails returned, nails shipped, and nails scrapped were felt to be correct since double checks had been provided by outside sources. Using these figures with the derived production figures, an indicated ending inventory of finished nails was then produced. It will be noted that this ending inventory disagrees with the ending physical inventory by 10,300 lbs. Mr. Richards attributed this discrepancy to a known error in the taking of the 9/1/57 physical inventory when a quantity of household mix nails had been overlooked.

. . . .

Required

1. What inventory valuation should be used? Draft a memorandum for Mr. Richards setting forth the reasons for your recommendations.

EXHIBIT 1 Comparative Balance Sheets,* 1957

ASSETS	May 31, 1957	August 31, 1957
Current assets:		
Cash	$ 6,790.11	$ 16,857.32
Accounts receivable—customers	58,722.90	70,479.73
—other		563.56
Inventory	185,237.28	181,284.69
Prepaid insurance and expense	6,924.36	1,445.61
Total current assets	$257,674.65	$270,630.91
Fixed assets:		
Machinery and equipment†	62,000.00	67,417.78
Auto and truck		1,747.48
Less: Depreciation		(6,505.51)
Net fixed assets	$ 62,000.00	$ 62,659.75
Unamortized organization:		
Expenses		1,409.46
Total assets	$319,674.65	$334,700.12
LIABILITIES AND NET WORTH		
Current liabilities:		
Notes payable	$ 34,483.43	$ 40,370.55
Accounts payable	84,428.18	103,261.33
Accrued and withheld taxes	9,796.50	39,257.17
Accrued wages and expenses	4,218.39	10,173.51
Total current liabilities	$132,926.50	$193,062.56
Long-term liabilities:		
Notes payable	51,800.00	66,382.67
Notes payable and accrued interest—officers	35,000.00	35,505.83
Salaries and installment obligations		4,813.49
Total long-term liabilities	$ 86,800.00	$106,701.99
Net Worth:		
Capital stock		
Common—no par authorized—20,000 shares issued and outstanding (10 shs.)	110,000.00	120,000.00
Operating surplus (deficit)	(10,051.85)	(85,064.43)
Net worth	$ 99,948.15	$ 34,935.57
Total liabilities and net worth	$319,674.65	$334,700.12

*The May 31, 1957, statement was not audited and Mr. Richards believed it was inaccurate due to accounting technique: overvaluation of inventories and understatement of accruals.

†Valued at purchase price. Appraised value determined by a Factory Mutual Insurance Company at approximately $335,000.00

EXHIBIT 2 Comparative Statements of Profit and Loss

	9 Months Ending May 31,1957		Fiscal Year August 31, 1957	
	$	% of Net Sales	$	% of Net Sales
Sales			$675,026.51	102.4%
Less: Returns and allowances			15,659.15	2.4
Net sales	$487,375.37	100.0%	$659,367.36	100.0%
Cost of sales				
Inventories—beginning			135,252.52	
Purchases			345,792.08	
Labor and manufacturing overhead			317,892.20	
			$798,936.80	
Less: Inventories—ending			181,284.69	
Total cost of sales	425,718.97	87.4	$617,652.11	93.7%
Gross margin	$ 61,656.40	12.6%	$ 41,715.25	6.3%
Selling and administrative:				
Advertising			3,022.67	.5
Commissions			1,356.22	.2
Freight out			23,968.95	3.6
Insurance			2,043.20	.3
Legal and professional			20,587.49	3.1
Research and development	6,516.08		5,277.20	.8
Salaries— executive			12,480.90	1.9
— office			18,947.89	2.9
— sales			8,871.88	1.3
Taxes—miscellaneous			4,268.85	.6
Travel			7,670.03	1.2
Miscellaneous expenses			14,903.63	2.3
Total	$ 68,172.48	14.0%	$123,398.91	18.7%
Net loss from operations	($ 6,516.08)	(1.4%)	$ 81,683.66	12.4%
Other charges:				
Sales discounts	10,917.04	2.2	6,089.05	.9
Interest expense	2,568.30	.5	5,939.08	.9
Bad accounts			112.65	-
	($ 20,001.42)	(4.1%)	($ 93,824.44)	(14.2%)
Other income:				
Scrap sales	5,612.10	1.2	8,022.54	1.2
Other	4,337.47	.9	737.47	.1
Net loss*	($ 10,051.85)	(2.0%)	($ 85,064.43)	(12.9%)

*Mr. Richards believes that the net loss figures are misleading due to the fact that accounting procedure used to derive the unaudited May 31, 1957, profit and loss statement greatly understated the loss for the first nine months of operations, thus causing high overstatement of losses in the fourth quarter.

EXHIBIT 3

Analysis of Net Loss from Operations for Year Ended August 31, 1957

Excess labor and direct overhead costs for 10 months of the year (estimated at $300 per week)	$12,000
Training of nail makers (8 men for 6 months)	15,000
Moving machinery and rearrangement of production departments	5,000
General cleaning of plant areas	1,500
Reinspection of returned merchandise	1,500
Rehabilitation of production machinery (other than nail machines)	2,500
Duplication of plant supervision labor—6 months	3,500
Powasert sales promotion salary and expenses	4,000
Weekly employee relation bulletin and nonrecurring production system costs	300
Sales commissions to unsuccessful agents	250
Cost of stationery and expenses for revision of bookkeeping system	1,000
Painting offices	500
Legal fee in connection with union election procedures	750
Nonrecurring research expenditures	5,000
Unusual sales department travel expenses in connection with change of ownership	750
Direct expense of enlarging agents' distribution	1,500
Unusual advertising expenditures for price lists and direct-mail lists	5,000
Legal and accounting fees relating only to initial operations and systems revisions	3,000
Estimated cost of samples of stock and experimental nails for sales groups (12,000 lbs. at $25 cwt.)	3,000
Estimated loss on rubber heel nails for six months from date of steel price increases (February and July 1957) at average of 75 cents per cwt. (300,000 lbs.) (This item does not include total loss estimate of at least $20,000 on development and manufacture of the rubber heel nails during the fiscal period.)	2,250
Estimated loss on production of experimental tacks (50,000 lbs. at $10 cwt.)	5,000
Total	$73,300

In addition to these costs there was approximately $3,500 of expenses which will benefit future fiscal periods. This item consists of new thread rolling dies, sifter screens, and other production items which are in the nature of deferred expenses, but have been charged to the operations of the first fiscal year.

EXHIBIT 4 Overhead Allocation to Productive Departments

Labor and Overhead Accounts	Total Cost	Nail Dept.	Rolling Room	Plating Dept.	Threading Dept.	Small Packaging	Bulk Packaging	Machine Shop	Tool Room	Factory Overhead	Material Handling	Hardening Department	Inspect & Sift
Rent						[Allocation base:]	(sq. feet)						
Insurance - general							(appraised machinery values)						
Depreciation							(actual cost based on changes in appraised values)						
Heat, light, & power							(sq. feet)						
Labor							(payroll summary by departments)						
Overtime							(payroll summary by departments)						
Vacation & holiday pay							(payroll summary by departments)						
Payroll taxes							(payroll summary by departments)						
Workmen's compensation							(payroll summary by departments)						
Group insurance							(payroll summary by departments)						
Maintenance and repair							(actual cost direct to department)						
Supplies							(actual cost as issued)						
Miscellaneous							(actual cost as issued)						
Total	x	x	x	x	x	x	x	x	x	x	x	x	x
Allocation of Service Departments													
Machine shop		75%	10%		5%			(100%)		10%			
Inspect & sift		100%											(100%)
Hardening		100%										(100%)	
Factory office		50%	10%		5%	5%	15%		10%	(100%)	5%		
Tool room		100%							(100%)				
Material handling		100%									(100%)		
Total		x	x	x	x	x	x						

EXHIBIT 5 Monthly Inventory Valuation and CGS Determination

April 1958

	Pounds	Unit Cost	Total Cost
Nail Making Department:			
In process—beginning:			
Wire	25,000		$ 2,084.39
Wire on & at machines	12,000		1,240.62
	37,000		$ 3,325.01
Current charges:			
Wire	601,309	$0.09	$ 54,117.81
Labor & overhead			18,864.02
Total charges	638,309		$ 76,306.84
Work in process end:			
Wire on floor	25,000		$ 2,084.39
Wire on & at machines—mat.	12,000		1,080.00
labor & OH		0.03137*	188.22*
Total WIP	37,000		$ 3,352.61
Goods finished	601,309	0.1213	$ 72,954.23
Roller Department:			
Cut nails in process—beginning	75,932		$ 9,377.98
Transferred from nail department	601,309		72,954.23
Total materials	677,241	0.1216	$ 82,332.21
Labor and overhead			7,233.68
Total charges	677,241	0.13225	$ 89,565.89
Less normal scrap	48,962		
	628,279		$ 89,565.89
Work in process—end			
Wire on & at machines—mat.	128,242	0.1216	$ 15,594.89
labor & OH		0.1258†	806.64†
Total WIP	128,242		16,401.53
Goods finished	500,037		73,164.36
All Other Departments			
In process	-		-
Transferred from roller department	500,037		$ 73,164.36
Labor and overhead			32,025.24
Nails completed	500,037	0.2104	$105,189.60
Cost of Goods Sold:			
Sales	531,022		
Production	500,037		$105,189.60
Inventory draw-down	30,985	0.17416	5,396.37
Variable cost of sales			$110,585.97
Fixed costs			3,557.78
Container costs			1,500.00
Cost of goods sold		0.2178	$115,643.75

*Since the equivalent of 601,309 pounds were started and completed a labor & overhead rate per pound was computed by $18,864.02 ÷ 601,309 (beginning and ending "wire on & at machines" always assumed 50% complete).

†Since the equivalent of 575,154 pounds were started and completed (including scrap), labor and overhead rate = $7,233.68 ÷ 575,154 (beginning and ending WIP assumed 50% complete).

EXHIBIT 6

Year End Inventory Valuation— Finished Nails and Work in Process

Pounds Manufactured:		
In process—beginning (10% complete)	10,223	9,201
Nails finished	3,309,963	
In process—beginning	10,223	3,299,740
In process—end (90% complete)	74,955	67,460
Finished equivalent		3,376,401
Manufacturing Costs:		
Labor and overhead		$318,506.00
Less packing costs—bulk	$27,681.45	
—small	26,612.59	54,294.04
Net manufacturing cost		$264,211.96

Average manufacturing cost/lb. ($264,211.96 ÷ 3,376,401) $0.07825

Ending Inventory	Packed	Loose	In Process	Total
Pounds	313,870	242,295	74,955	631,120
@ $0.07825/lb.	$24,560.33	$18,959.58	$ 5,278.71	$ 48,798.62
Wire cost @ $0.1010/lb.	31,700.87	24,471.80	7,570.45	63,743.12
Total material and labor	$56,261.20	$43,431.38	$12,849.16	$112,541.74
Packaging labor and overhead (1.577/cwt.)	4,949.73*			4,949.73
Packaging material	1,961.68*			1,961.68
Total inventory values	$63,172.61	$43,431.38	$12,849.16	$119,453.15

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*Packing Analysis		
Nails sold	3,230,000	
Ending inventory—packed	313,870	3,543,870
Beginning inventory—packed		100,000
Total pounds packed		3,443,870
Packing labor and overhead		$54,294.04
Packing labor and overhead rate/cwt.		$1.577

Packing materials:			
1-lb. packages	@ $1.1000/cwt.	41,721 lbs.	$ 458.93
5-lb. packages	@ 1.0000/cwt.	71,559	715.59
50-lb. packages	@ 0.3924/cwt.	200,590	787.16
Total packaging materials		313,870 lbs.	$1,961.68

EXHIBIT 7

Balance Sheet

February 28, 1958

CURRENT ASSETS:		
Cash in banks and on hand		$ 6,124.26
Accounts receivable		59,516.02
Travel advances		288.39
Inventories		221,785.11
Prepaid expenses & insurance		2,075.44
Total current assets		$289,789.22
FIXED ASSETS:		
Machinery & equipment	$70,393.16	
Auto & truck	1,747.48	
Office equipment	1,859.10	
	$75,999.74	
Less: Accumulated depreciation	10,165.51	63,834.23
Unamortized organization expense		1,259.46
TOTAL ASSETS		$354,882.91
LIABILITIES:		
Notes payable—Boston bank	$36,000.00	
—Framingham bank	10,140.00	
—SBA	56,607.02	
—Other	14,300.69	
		$117,047.71
Accounts payable		77,854.49
Accrued salaries & wages		6,855.71
Miscellaneous accruals—employees		205.25
Accrued expenses		12,729.85
Notes payable—officers		35,505.83
		$250,198.84
NET WORTH:		
Capital stock		195,926.35
Operating deficit		(91,242.28)
TOTAL LIABILITIES AND NET WORTH		$354,882.91

EXHIBIT 8 Profit and Loss Statement

9/1/57 - 2/28/58

	Pounds	Unit		
Gross sales	1,650,700			$374,125.08
Less: Sales allowances & adjustments	39,800			10,075.76
Net sales	1,610,900	$0.22599		$364,049.32
Cost of sales		0.19100	$307,676.95	
Freight out		0.00968	15,585.91	323,262.86
Gross margin (11.20% of net sales)				$ 40,786.46
Selling & administrative:				
Selling			$ 11,192.88	
Administrative			29,952.68	41,145.56
Loss from operations				($ 359.10)
Other expenses:				
Interest expense			$ 3,572.37	
Sales discounts			3,791.15	
Massachusetts corp. excise tax			539.22	
			$ 7,902.74	
Scrap sales		$2,001.09		
Miscellaneous income		82.90	2,083.99	5,818.75
Net loss for period				($ 6,177.85)
Deficit, August 31, 1957				($ 85,064.43)
Deficit, February 28, 1958				($ 91,242.28)

EXHIBIT 9 Production and Inventory Reconciliation

Pounds
9/1/57 - 2/28/58

	Based on Production Records		Figures Used in Statements	
Wire				
Beginning balance 9/1/57	317,200		317,200	
Received	1,673,300		1,696,500	
Total	1,990,500		2,013,700	
Less issues	1,850,300		1,833,500	
Balance	140,200		180,200	
Physical inventory—2/28/58	180,200		180,200	
Book inventory—2/28/58	175,900		175,900	
Physical over-(under) balance		40,000		
Nails				
Beginning balance—9/1/57	556,200		556,200	
Cut and rolled	1,689,800		1,724,000	
Total	2,246,000		2,280,200	
Nails returned	39,800		39,800	
Total	2,285,800		2,320,000	
Less nails shipped	1,615,100		1,615,100	
Net	670,700		704,900	
Less nails scrapped	2,600		2,600	
Balance	668,100		702,300	
Physical inventory—2/28/58	712,600		712,600	
Physical over-(under) balance		44,500		10,300
Material Reconciliation				
Wire issued	1,850,300		1,833,500	
Less scrap reported	187,800		187,800	
Net material into nails	1,662,500		1,645,700	
Nails cut and rolled	1,689,800		1,724,000	
Indicated WIP draw-down		27,300		78,300
Physical inventory in process 9/1/57				
Wire on floor—nail making	24,900		24,900	
Wire on machines	6,000		6,000	
Nails cut—not rolled	75,000		75,000	
Total (A)	105,900		105,900	
Physical inventory in process 2/28/58				
Wire on floor & at machines	20,300		20,300	
Nails cut—not rolled	7,300		7,300	
Total	27,600		27,600	
Actual WIP draw-down [(A) - (B)] (B)		78,300		78,300

EXHIBIT 10

Valuation of Ending Inventory, February 28, 1958

		Segregated Valuation			Average Cost Valuation	
Physical Inventory Summary	Pounds	Cumulative Basic Cost (cwt.)	Finishing* Operations	Total Cost(1)	Cumulative Basic Cost (cwt.)	Total Cost(2)
Wire—unissued	180,209	$ 9.90	-	$ 17,841	$ 9.90	$ 17,841
issued (in process)	20,300	10.10	-	2,050	10.10	2,050
Nails—in process—not rolled	7,280	16.20	-	1,179	14.85	1,081
Finished nails—unpacked						
Plain	151,010	17.18	-	$ 25,944		
Threaded	11,870	17.18	(T)	2,290		
Threaded and sifted	13,930	17.18	(T), (R), & (S)	2,991		
Plated	1,400	17.18	(P)	302		
Headless pins	2,240	15.31	(R)	365		
Household mix	97,030	15.90	-	15,428		
Finished nails—packed					Average	
Plain	147,610	17.18	-	25,359	6-Month	
Plated	700	17.18	(P)	151	Processing	143,841
Sifted	159,400	17.18	(S)	29,298	Cost	
Threaded	63,050	17.18	(T) & (R)	12,780	$0.20184	
Threaded and galvanized	2,500	17.18	(T), (R), & (G)	707		
Threaded and hardened	3,250	17.18	(T), (R), & (H)	838		
Galvanized	1,150	17.18	(G)	290		
Doubled pointed pins	13,300	17.18	(1/2S)	2,365		
Drive screws	3,450	17.18	(2T) & (R)	772		
Headless pins	5,950	15.31	(R) & (S)	1,041		
Consigned—West Coast	19,925	17.18	(P)	3,901		
—American dist.	14,885	17.18	(P) & (S)	3,138		
Total finished nails	712,650			$127,960		
Packing material in finished tools	-		-	1,389		1,389
Packing cost in finished goods	-		-	3,487		3,487
Tacks—foreign purchased	62,043	29.83+	-	18,675		18,675
Inventory—packing materials	-		-	22,698		22,698
Supplies and tools	-		-	9,000		9,000
Scrap	-		-	598		598
				$204,877		$220,660**

*Finishing Operations		Rate (/cwt.)
Rolling	(R)	$0.98
Threading	(T)	2.11
Sifting	(S)	1.20
Plating	(P)	4.38

Finishing Operations		Rate (/cwt)
Galvanizing	(G)	$8.00
Hardening	(H)	5.50
Packaging	(P)	2.40

**Slightly modified for balance sheet - cf. Exhibit 7.

CASE 29

Waters & Son, Inc.*

At a meeting of the board of directors of Waters & Son, Inc., in February 1955, one of the members raised an inquiry concerning the company's depreciation policy. Several of the directors felt a review of the depreciation policy would be most timely, as a new two and one-half million dollar roofing plant [1] was scheduled for completion during the month. It was recommended that Paul Lewis, secretary-treasurer, have a study prepared considering the effects upon the financial operations of the company of changing from the straight-line method to any of the other accepted depreciation techniques recognized for Federal income tax purposes.[2]

Waters & Son, Inc., was a manufacturer of asphalt shingles, insulated siding, linoleum, felt-base floor covering, shipping cases, paper boxes, and

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[1] The building costs were estimated at $700,000 and machinery and equipment costs at $1,800,000.

[2] The Revenue Act of 1954 recognized under certain conditions the use of more liberal methods of depreciation than had previously been accepted. The methods in general use prior to 1954 were the straight-line method and unit of production method. The limited declining balance method and other consistent methods specifically approved by the commissioner could also be used. Effective January 1, 1954, the sum-of-years-digits method and the double declining balance method were recognized for new properties acquired after 1953.

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many other related items. The building materials industry was highly competitive and marketing prices were beyond the control of any one producer in the industry. These items were normally produced for stock and on a relatively stable production schedule through the year. The company had for many years controlled approximately 10 per cent of the total market for roofing materials and linoleum. Due to the high costs of transportation, the paper box industry was generally considered a regional industry servicing a relatively small geographical area. These products were made on special orders and on contract. Even though the paper box division produced an important part of the firm's total sales, its output was a negligible part of the paper box industry.

The company was organized as a partnership about 1800 in New England and had been controlled by the Waters family through the years. In 1918 the company was incorporated; since that time the number of stockholders had increased steadily. The stock was not listed on an exchange; in fact the majority of the common stock was held by the family, employees, and others directly associated with the business. The company operated seven plants scattered throughout New England, the Midwest, and the South. The major factor in the location of these plants was their proximity to the areas of distribution of their products. A subsidiary company which produced a related product was wholly owned by Waters & Sons, Inc.

At a meeting of his staff, two days following the board meeting, Paul Lewis stated: "Several of the directors seem to have a strong feeling that we should change our depreciation policy to one which gives us the most favorable income tax position. They have asked us to prepare a study of the effects of such a change in policy."

"We have for so many years consistently used the straight-line method of depreciation applied to groups of assets that any departure now would destroy all comparisons and variances which we have been computing and analyzing each month," retorted Tom Allen, the office manager.

The cost accountant, Henry Richard, added: "I agree with Tom. Top management has watched these variations and changes so closely that we even include in our cost comparisons depreciation on fully depreciated equipment that is still in use. This necessitates an extra adjustment in the general accounting department to pull out this depreciation on the fully depreciated assets before the company statement can be prepared."

"A change in depreciation policy could have an effect upon a great many items around here as well as our net income and the income tax liability—what about working capital?" commented George Harrison, the assistant treasurer.

After considerable discussion, Paul Lewis interrupted: "This is all fine, but what we need are facts and figures to point out the effects and to support any proposals we wish to make. I suggest we decide what data we need and when it is prepared I will distribute it to each of you for your consideration. We can plan to meet again in about ten days to discuss this further and attempt to draw up a tentative report."

It was suggested that balance sheets and income statements for five years would be necessary. "That would be for the years 1950 through 1954. I think we should include 1949 also," suggested George Harrison. "As you remember in 1950 we were shut down for eleven weeks due to a strike." This was agreed upon as a good suggestion.

"I could not get a detailed breakdown on each and every classification of building and machinery, except by going back through all the detail plant ledger cards.[3] I am not certain this would provide any useful or necessary information if it were done," commented Tom Allen. "From studies made by our auditors, we know that buildings amount to approximately 40 per cent of the totals in the fixed asset accounts; machinery, equipment, and other incidental items make up the balance."

George Harrison observed: "Repair costs are relatively stable due to our policy of constant upkeep and maintenance, most of which is done by our own employees. Also there appears to be no marked increase in repair costs due to age or amount of use of most of the equipment."

"This is true, partially at least, due to the fact that most of our machines are large and slow moving and thus are not subject to the extreme wear that is true of high speed, precision equipment," added Larry Long, the company auditor. "Also, obsolescence is not a major factor with us. Most of our new machines are similar to those we have been using for many years. By the way, when mentioning various items to be considered, we do not want to overlook the effect upon the employee retirement plan, which is partially based on profits."

After determining the data to be assembled by the respective men and their assistants, the discussion in the meeting shifted to other routine matters.

During the next several days, the suggested data were prepared and given to Paul Lewis for reproduction and distribution to the various men. Included were the following:

(1) Comparative consolidated balance sheets as of December 31, 1949 through 1954 (Exhibit 1). These were taken from the annual stockholders' reports.

(2) Comparative consolidated statements of earnings for years 1949

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[3] All expenditures including labor and applied overhead for additions, replacements, and repairs were accumulated on work orders which were reviewed as to proper charge. All orders which in any way increased or added to the value of the buildings or equipment were capitalized in the property accounts. These were classified as to division, plant, building location, and estimated life. A separate plant ledger card was maintained for each subclassification which numbered approximately 8,000. Annual depreciation rates averaged 3 per cent on buildings and 7½ per cent on machinery and equipment.

through 1954 (Exhibit 2). These were also taken from annual stockholders' reports.

(3) Schedule of fixed assets and reserves for years 1949 through 1954 (Exhibit 3).

Paul Lewis outlined his opinions as to the future of Waters & Son, Inc., in a written statement and distributed it to his staff together with the other data.

"Indications are that business will continue at a high level throughout the coming years, and we expect that this activity will be reflected in an increasing demand for our full line of products.

"The successful growth of our business is due to the fact that for many years a substantial portion of our earnings has been 'plowed back' into the business in order to improve our facilities and carry on our research and engineering program which is devoted to product improvement, the development of new products, and cost reduction through more efficient operation.

"Our capacity has been increased during the past few years and with our policy of adding facilities and plants in those areas which can no longer be economically served from our other plants, our total production and sales volumes should continue to rise. Continuation of this policy of additions as rapidly as our financial structure will permit should allow us to retain and perhaps increase our share of the market beyond the 10 per cent we now hold."

EXHIBIT 1

Consolidated Balance Sheets* as of December 31
(Dollars expressed in thousands)

WATERS & SON, INC.
and Subsidiary Company

Assets	1954	1953	1952	1951	1950	1949
Current assets:						
Cash in banks and on hand	$ 2,431	$ 2,315	$ 1,616	$ 1,125	$ 1,020	$ 844
U.S. Government securities, at cost (Note 1)	3,698	6,999	3,753	4,353	2,753	760
Other marketable securities, at cost (Note 2)	54	54	54	491	1,549	215
Claim for refund of prior years' federal taxes on income	81	-	-	-	-	-
Accounts and notes receivable—trade, less reserves	4,561	4,105	3,535	2,684	3,859	2,427
Other accounts and notes receivable	242	266	187	204	110	93
Inventories, at cost or market, whichever is lower	7,415	7,176	6,608	6,649	5,290	5,472
Prepaid insurance and other deferred expenses	842	756	767	598	823	728
Total current assets	$19,324	$21,671	$16,520	$16,104	$15,404	$10,539
Investments, etc.:						
Investment in affiliated company, at cost (Note 3)	$ 573	$ 573	$ 573	$ 573	$ 573	$ 572
Miscellaneous investments, non-current receivables, etc., less reserves	647	475	300	332	141	91
	$ 1,220	$ 1,048	$ 873	$ 905	$ 714	$ 663
Fixed assets (at cost) after eliminating fully depreciated assets:						
Land, buildings, machinery, equipment, and leaseholds	$27,900	$24,962	$24,256	$22,453	$21,137	$20,313
Less depreciation	10,929	10,264	9,252	8,562	7,926	7,439
	$16,971	$14,698	$15,004	$13,891	$13,211	$12,874
Total assets	$37,515	$37,417	$32,397	$30,901	$29,329	$24,076

*Source: Annual stockholders reports.
Note: 1. Approximated market quotation at 12/31/54.
Note: 2. Value based on market quotations, approximately $1,088,000 at 12/31/54.
Note: 3. Investment in 84,573 shares of capital stock of Waters Machine Company representing 70% of shares outstanding and has approximate book value of $2,253,000 at 12/31/54.

(cont'd)

EXHIBIT 1, cont'd

WATERS & SON, INC.
and Subsidiary Company

Liabilities	1954	1953	1952	1951	1950	1949
Current liabilities:						
Notes payable—portion due within one year	$ 500	$ 500	$ 625	$ 313	$ -	$ 200
Accounts payable and accrued expenses	3,081	2,886	2,418	1,997	2,144	1,768
Dividends payable	284	284	-	-	-	-
Contribution payable to retirement fund for benefit of employees	726	833	790	516	149	454
Federal and state income and excise taxes	2,268	2,556	1,885	1,554	946	1,067
Total current liabilities	$ 6,859	$ 7,059	$ 5,718	$ 4,380	$ 3,239	$ 3,489
Long-term debt:						
Unsecured notes, payable in semi-annual installments:						
3-1/4%, 1956-1959	$ 2,000	$ 2,500	-	-	-	-
4-1/4%, 1960-1967	4,000	4,000	-	-	-	-
2-3/4%, 1952-1960	-	-	$ 4,063	$ 4,688	$ 5,000	-
	$ 6,000	$ 6,500	$ 4,063	$ 4,688	$ 5,000	-
Reserve for workmen's compensation insurance, etc.	$ 188	$ 172	$ 159	$ 156	$ 146	$ 137
Capital stock and retained earnings:						
Capital stock (Note 4):						
Preferred—5% cumulative; $100 par value, per share Authorized—50,000 shares, issued—30,000 shares	$ 3,000	$ 3,000	$ 3,000	$ 3,000	$ 3,000	$ 3,000
Common—without par value Authorized and issued—60,000 shares	3,000	3,000	3,000	3,000	3,000	3,000
Retained earnings employed in business	19,395	18,605	17,376	16,596	15,863	15,369
	$25,395	$24,605	$23,376	$22,596	$21,863	$21,369
Less: capital stock of Waters & Son, Inc. held in treasury for corporate purposes at net cost:						
Preferred stock-8,467 shares at 12/31/54	$ 800	$ 792	$ 792	$ 792	$ 792	$ 792
Common stock-32,804 shares	127	127	127	127	127	127
	$ 927	$ 919	$ 919	$ 919	$ 919	$ 919
	$24,468	$23,686	$22,457	$21,677	$20,944	$20,450
Total liabilities	$37,515	$37,417	$32,397	$30,901	$29,329	$24,076

Note 4. Number of common stockholders at December 31, 1954, was 2,657, an increase of approximately 150 during the year.

EXHIBIT 2

Consolidated Statement of Earnings* for Year Ended December 31
(Dollars expressed in thousands)

WATERS & SON, INC.
and Subsidiary Company

	1954	1953	1952	1951	1950 (Note 1)	1949
Sales, less discounts and allowances	$51,744	$47,381	$44,026	$42,937	$34,114	$38,375
Cost of sales (Note 2)	41,602	36,711	35,098	35,590	28,629	32,123
	$10,142	$10,670	$ 8,928	$ 7,347	$ 5,485	$ 6,252
Deduct:						
Selling, general, and administrative expenses (Note 2)	$ 5,711	$ 5,401	$ 4,771	$ 4,185	$ 3,491	$ 3,460
Experimental and engineering expenses	288	289	287	187	143	162
	$ 5,999	$ 5,690	$ 5,058	$ 4,372	$ 3,634	$ 3,622
Earnings before other income and other charges	$ 4,143	$ 4,980	$ 3,870	$ 2,975	$ 1,851	$ 2,630
Other income:						
Interest and dividends:						
Waters Machine Company	$ 106	$ 106	$ 106	$ 127	$ 127	$ 87
Other	114	126	86	79	56	58
Gain on disposal of investments	-	-	-	157	-	2
Miscellaneous (net)	93	48	90	157	121	121
	$ 313	$ 280	$ 282	$ 520	$ 304	$ 268
	$ 4,456	$ 5,260	$ 4,152	$ 3,495	$ 2,155	$ 2,898
Other charges						
Provision for contribution to Retirement Trust for Benefit of Employees (Note 3)	$ 726	$ 833	$ 791	$ 516	$ 148	$ 453
Interest expense	265	161	136	138	66	-
Loss on disposal of fixed assets	-	-	-	-	1	36
Miscellaneous (net)	-	-	18	4	1	3
	$ 991	$ 994	$ 945	$ 658	$ 216	$ 492
	$ 3,465	$ 4,266	$ 3,207	$ 2,837	$ 1,939	$ 2,406
Deduct:						
Provision for federal income taxes	$ 1,859	$ 2,220	$ 1,610	$ 1,286	$ 770	$ 831
Net earnings for the year	$ 1,606	$ 2,046	$ 1,597	$ 1,551	$ 1,169	$ 1,575

*Source: Annual stockholders reports.

EXHIBIT 2, cont'd

WATERS & SON, INC.
and Subsidiary Company

Note 1. Plant was closed for a period of 11 weeks due to strike.

Note 2. Repair costs charged to operations were:

Year	Repairs
1954	$1,718,000
1953	1,330,000
1952	1,843,000
1951	1,799,000
1950	1,906,000
1949	1,951,000

Note 3. Retirement Plan for employees began in 1947 and provides for life insurance to each employee before retirement, regular monthly income upon retirement, and $500 life insurance after retirement. Funds are held by the Merchants National Bank of Boston as trustee. Contributions are made annually by the company as a charge against income. These contributions are determined by the company dependent upon income but with a minimum annual appropriation of $480,000 required to maintain the fund and a maximum limit of 15% of total annual wages to covered employees.

EXHIBIT 3

Schedule of Fixed Assets and Reserves for Years from 1949 to 1954

(Dollars expressed in thousands)

WATERS & SON, INC.
and Subsidiary Company

Fixed Assets

			Deductions		
Year	Beginning Balance	Additions Expenditures	Retirements	Write Off of Fully Deprec.	Ending Balance
1954	$24,962	$3,595	$116	$541	$27,900
1953	24,256	1,078	155	217	24,962
1952	22,453	2,304	218	283	24,256
1951	21,137	1,817	218	283	22,453
1950	20,313	1,397	205	368	21,137
1949	16,432	4,022	574	(433)	20,313

Reserve for Depreciation

			Deductions		
Year	Beginning Balance	Additions Provision	Retirements	Write Off of Fully Deprec.	Ending Balance
1954	$10,264	$1,312	$106	$541	$10,929
1953	9,252	1,300	71	217	10,264
1952	8,562	1,164	191	283	9,252
1951	7,926	1,111	192	283	8,562
1950	7,439	1,047	192	368	7,926
1949	6,692	794	480	(433)	7,439

CASE **30**

Shipstead Electronics Corporation

The Shipstead Electronics Corporation was a large producer of radios, phonographs, and television sets. The company also produced related electronic equipment in specialized fields for the government and private industry. Shipstead had plants throughout the world, and sales branches throughout the country. Although much of the production at Shipstead's plants was standardized, there were great technological advances which occurred too frequently to allow Shipstead to manufacture a product of standard parts for more than five years. Of course, many of the components of the radio and television sets were standard equipment on all models, and this type of production somewhat simplified the replacement problem.

Fixed assets at Shipstead were grouped by classes of assets. Depreciation rates were computed at specific rates by classes of asset on the gross value of all such assets in use by the company. For example, the company depreciated plants of frame and light steel construction at a three per cent rate on the basis of an estimated life of 33⅓ years. If the asset remained in use beyond the estimated life, however, the company continued to depreciate the asset as long as there was any remaining undepreciated balance on this class of asset. If the frame and light steel plant had been built in 1910 at a cost of $200,000, it would be fully depreciated by 1944. The company, however, would continue its yearly charge of $6,000 per year to operations as long as there was an undepreciated balance on all plant buildings of frame and light steel, despite the fact that for tax purposes depreciation stopped after $200,000 had been recovered. This policy served to build up a so-called secret reserve which offset possible obsolescence of undepreciated assets.

The effects of such a depreciation policy did not become pronounced so long as the company expanded. Shipstead had shown steady growth since its inception in 1902. Asset balances had continued to grow each year despite depreciation charges. However, as the plants and equipment grew older and remained in use, and the rate of company expansion dropped off or ceased, the imbalance between assets and reserves for depreciation became accentuated. At August 31, 1950, the amount of such fully depreciated property still on the books and still being depreciated amounted to approximately $16,000,000 out of a gross value of depreciable assets of $100,000,000. The depreciation reserve was $42,000,000, and total assets at Shipstead were $175,000,000. Sales for the 1949-1950 fiscal year amounted to $700,000,000, and profits after taxes were $20,000,000. Supplementary data on the financial position of the company and on its fixed assets are presented in Exhibits 1, 2, and 3.

The setting of the depreciation rate at Shipstead was done by the chief accounting executive, the controller of the corporation. This rate was supposed to represent fairly the physical life of the plant, machinery, or equipment involved. Actually, however, the machinery either lasted a longer or shorter time than expected, because of technological factors. The physical life of plants could be extended almost indefinitely through preventive maintenance. In setting the life and rate of depreciation of an asset, the controller considered many factors:

1. The tax rates allowable.
2. Estimates of life made by manufacturers or contractors, engineers, or outside experts.
3. Miscellaneous factors, such as the use to which the plant or machine would be put, the price or cost of the article, fragility, or other manufacturers' experiences.

Depreciation rates were changed if the controller believed that an error had been made in the original estimate, but only if the estimate affected the whole class of assets and not merely one asset.

Naturally the depreciation method followed by Shipstead, since it was not allowed for tax purposes, compelled the company to maintain two sets of records for fixed assets: one for taxes, and one for company use and annual report presentation.

Recently the company estimated that it was creating a hidden reserve of about $600,000 per year. The problem of what depreciation policy to follow in the future assumed major proportions at Shipstead. The company did not expect its business to expand substantially (nor even at the same rate as previously) in the next ten years. It believed that it would remain at approximately the same size, and that, over a period of years, the hidden depreciation reserve would thereby become extremely large in relation to other assets and liability accounts.

The company gave three reasons for maintaining its present policy. First, Shipstead believed that it should recover, through an adequate selling price, the cost of its operations. The corporation felt that it should protect the investment of the stockholders, both dollarwise and in relation to purchasing-power. It therefore reasoned that the product should bear the actual costs of operations, and not reflect paper profits which accrue because of low depreciation rates due to undervalued assets. Even though selling price was largely determined by competition, the company believed that price was still influenced by what the manufacturer believed his price must be to cover his total costs and make a profit. Shipstead was afraid that if it did not depreciate on the gross asset balance of a group of assets, it would not recover the amount it should, and could, recover.

The second reason given by the company for keeping the present depreciation policy was that, although this rate created a reserve when assets outlived their depreciable life, Shipstead lost from the reserve when assets were retired before they were fully depreciated. The reason for this was that Shipstead never charged income with the undepreciated balance (gross value less salvage less depreciated amount gives undepreciated balance). Instead, the total gross value less salvage was deducted from the depreciation reserve. Since the depreciation rate was based upon average estimated life, the apparent hidden gains and losses should have negated each other. Shipstead further argued that even though a reserve was being built up at the rate of $600,000 annually, it was impossible to determine obsolescence accurately in an industry as competitive and technologically advanced as radio, and that any year might bring an unexpected change which would cause Shipstead to scrap old machinery and buy new equipment.

Finally the third reason why Shipstead was hesitant about shifting depreciation programs was the tremendous effect such a change would have initially on the balance sheet. The reserve would then become a "profit" in the eyes of the public, labor, and the stockholder, and pressures would be exerted upon Shipstead management by each group. Management at Shipstead was afraid that these pressures might seriously hamper the efficient operation of the company.

Required

1. The controller of Shipstead has asked you to say what you think should be done with regard to depreciation of fixed assets. Your review should present specific proposals both for record keeping purposes and for treatment in the annual report.

EXHIBIT 1 Summarized Balance Sheet—August 31, 1950

ASSETS	
Current	
Cash	$ 18,460,000
U.S. Securities	4,370,000
Accounts Receivable	34,540,000
Inventories	53,722,000
Prepaid Expenses	2,707,000
Total Current	$113,799,000
Land, Buildings and Equipment	$103,844,000
Less accumulated depreciation	41,972,000
	$ 61,872,000
Total	$175,671,000
LIABILITIES	
Current	
Accounts Payable	$ 24,067,000
Accrued Taxes	11,442,000
Other	3,074,000
Total Current	$ 38,583,000
Debentures—20 yr. Sinking Fund	$ 16,400,000
Capital Stock and Surplus	
Preferred Stock	31,000,000
Common Stock	61,444,000
Earned Surplus	28,244,000
Total	$175,671,000

EXHIBIT 2

Supplementary Data
Fixed Assets and Reserves for Depreciation
August 31, 1950

	Assets	*Reserve for Depreciation*
Land	$ 4,164,000	
Buildings		
Stone	22,404,000	$19,807,000
Brick	17,662,000	8,607,000
Other	3,174,000	824,000
Machinery and Equipment	56,440,000	12,734,000
	$103,844,000	$41,972,000

Note: Depreciation charged operations for year ended August 31, 1950, totaled $3,864,000.

Fully Depreciated Property, Based on Year of Acquisition

	Assets	*Depreciation*
Buildings		
Stone	$ 13,200,000	$16,047,000
Brick	600,000	702,000
Machinery		
Lathes, Punch Presses		
Knobbing and Curling Machines	2,564,000	3,176,000
	$ 16,364,000	$19,925,000

EXHIBIT 3

Supplementary Data

A sample survey of estimated remaining lives of fully depreciated assets now in use was made by the engineering office and, on sample, assets showed the following range:

	Estimated Remaining Life
Stone Building—(No. 44)	From 1 to 10 years

Based upon technological improvements, physical condition, and company policy pertaining to centralization of manufacturing facilities. It was estimated that the only resale value of building No. 44 was a nominal salvage value.

Machinery—(Plant No. 24)

Turret Lathes	From 1 to 3 years

Based upon present technological improvement, the present machines are obsolete. Within the next several years, savings from new equipment should justify the purchase of new equipment.

CASE 31

The Pan American Company

The Pan American Company, one of the country's largest suppliers of printing inks and related chemicals, had just completed acquisition of a subsidiary late in 1956. With home offices in Chicago, the company had eight plants scattered throughout the country and sales offices in all the principal cities. The following data were taken from its 1955 annual report:

Sales	$100,106,000
Net profit after taxes	4,707,000
Total assets	58,075,000
Capital stock	7,440,000
Capital surplus	10,365,000
Earnings retained in business	16,740,000
Goodwill	1

Immediately after the legal matters pertaining to the new acquisition had been settled, the president had a meeting with his controller and treasurer to discuss the effect of the acquisition on the balance sheet of the company.

The following facts about the new acquisition were all agreed upon:

Purchase price in stock of Pan American Company	$740,300
Tangible assets acquired	$490,300
Excess of purchase price over book value of assets acquired	250,000
	$740,300

The amount of $250,000 representing excess of the purchase price over book value of assets acquired did not include any trademarks or patents of any significant value.

The president said that, as the company had not made a practice of showing goodwill at other than the nominal value of one dollar, he would prefer to write off the goodwill against capital surplus. The treasurer said this would be improper; the write-off would have to be against earned surplus. The controller disagreed with both, saying goodwill would have to be capitalized and written off against future earnings.

To prove his point, the controller had prepared a memo (Exhibit 1) showing what Colgate-Palmolive-Peet Company had done in 1946 when it acquired Kay Daumit, Inc.

The treasurer said this was only one example, and he could support his own view if necessary. The meeting broke up to resume at a later date.

A few days later the treasurer brought in certain data on General Foods and its acquisition of Perkins Products Company, manufacturers of Kool-Aid, in May, 1953 (Exhibit 2).

"See," he said, "my example is later and just as good as the controller's."

"Well," said the president, "apparently accounting rules and conventions will let you do anything you please. Give me a good, logical reason why I can't do what I prefer with our small acquisition."

EXHIBIT 1

Acquisition of Kay Daumit, Inc., by Colgate-Palmolive-Peet Company

On November 30, 1946, Colgate-Palmolive-Peet Company acquired, through purchase, Kay Daumit, Inc., and Daumit Beauty Products, Inc. The agreement by which Colgate bought Daumit provided that $3,750,000 be paid for the goodwill, patents, and formulas of Daumit and $381,892 for the combined net worth (exclusive of goodwill, patents, and formulas). Part of this consideration was payable in cash, and part in the stock of the Colgate company. The stock to be paid to Daumit consisted of 37,193 shares of common stock of the Colgate company, valued for such purposes at the average closing price of the common stock on the New York Stock Exchange during November, 1946 ($47.35 per share). The remainder was paid in cash.

Summary of Transaction

Assets Acquired:	
Tangible	$ 381,892
Goodwill	3,750,000
	$4,131,892
Payment:	
Capital Stock	$1,761,089
Cash	2,370,803
	$4,131,892

Data from Balance Sheet of Colgate-Palmolive-Peet Company
December 31, 1945

Sales	$135,368,000
Net Income transferred to Surplus	7,036,000
Total Assets	76,400,000
Capital Stock	37,000,000
Capital Surplus	1,800,000
Earned Surplus	21,500,000
Goodwill	

In its financial statements, Colgate-Palmolive-Peet Company capitalized the $3,750,000 of goodwill and stated that it was being written off over a ten-year period.

EXHIBIT 2

Acquisition of Perkins Products Company by General Foods

In May, 1953, General Foods acquired the Perkins Products Company, paying $13,678,814 through the issuance of 249,520 shares of capital stock of General Goods. Of the amount of $13,676,814, the company immediately wrote off the portion assigned to intangibles ($6,237,000) against earned surplus.

Summary of Transaction

Purchase Price	$13,676,814
Capitalized	$ 7,439,814
Intangibles Written off at Date of Acquisition	6,237,000
	$13,676,814

Data from Balance Sheet of General Foods
March 31, 1953

Sales	$755,919,000
Net Income transferred to Surplus	24,807,000
Total Assets	219,016,000
Capital Stock	142,795,000
Earnings Retained in the Business	76,222,000
Trademarks, Patents and Goodwill	1

CASE 32

International Trading and Investment Corporation

Early in August 1959, Mr. Charles M. Cooper, controller of the International Trading and Investment Corporation (ITI) of Boston, Massachusetts, arranged an informal meeting with Mr. Dudley Hainsworth, a representative of ITI's firm of certified public accountants; Mr. Willett F. Clarke, a member of ITI's Acquisitions Committee; and Mr. George N. Abrahams, controller of the Blake Electronics Corporation of New York. Mr. Cooper's purpose was to discuss the policy that ITI should adopt with regard to the possible amortization of the $3,035,000 that it had paid as goodwill in the acquisition, on July 31, 1959, of Blake's net assets and business. The purchase consideration had been 116,000 shares of ITI common stock, valued at $39 per share, its average price on the New York Stock Exchange during the period of the purchase negotiations (or $4,524,000 in all). (1958 Financial Statements and other data for ITI are shown in Exhibits 1 to 3, and for Blake in Exhibits 4 to 6.) The purchase agreement warranted that no substantial change had taken place in the composition of Blake's assets and liabilities between December 31, 1958, and the date of sale, other than the accumulation of the current year's profits to date of $284,000 after taxes, represented by additions to current assets, mainly cash.

Mr. Cooper had been one of ITI's representatives in the purchase negotiations. He felt that the amount of $3,035,000 (the excess of the purchase price over the book value of the net assets acquired) could only be ascribed to intangible goodwill, and not to any appreciation of Blake's assets over book value. In effect, this goodwill reflected Blake's superior earning power, as the purchase price had basically been determined as a nine-times multiple of its projected annual after-tax earnings base of $500,000. In their investigations the ITI management had established that Blake's tangible assets and its liabilities were fairly stated on its books. It was beyond the realm of possibility that an appraised revaluation of Blake's fixed assets (the only assets capable of large-scale revaluation) could account for any significant portion of the "excess" purchase price.

EARLY HISTORY

ITI was incorporated in 1875 as the Martin Trading Company. The founder, Mr. Desmond C. Martin, was a well-known and highly respected Boston banker, and a member of one of the oldest New England families. His intention was to take advantage of the rapid commercial growth and vast natural resources of both the United States and the Canadian provinces. However, he was in no haste to speculate in any way. He would start the company in a new line of business only after the most exhaustive inquiries. This thoroughness, coupled with his native shrewdness and conservatism, was one of the reasons for the success of his new business ventures.

By 1945, a business that had started on a relatively small scale, and with only modest capitalization, had grown into a giant enterprise. Over the years the company had followed a regular policy of reinvesting a portion of its net earnings. In recognition of this, there had been a number of substantial stock dividends. In addition, occasional opportunities had been given to stockholders to subscribe additional capital. Loan capital also played an important part in the company's growth.

By its seventieth birthday in 1945, the company was very solidly established in a number of fields. The trading ventures had developed into distributing companies with offices in both the United States and Canada. The manufacturing investments made through the years had all grown with the economy. The West Coast headquarters had even established trade ties with several Far Eastern countries. Foreign investments had followed, often in equal partnership with foreign investors.

POSTWAR DEVELOPMENTS

In his postwar planning, the president, Mr. Derek J. Hudson, was determined to maintain the company's solid conservative reputation, but at the same time wanted to continue to diversify the company's activities. After giving the matter due consideration, he presented a series of proposals to the board of directors in 1950. First, he recommended that the name of the company be changed to the International Trading and Investment Corporation, to give recognition to the broad and far-reaching scope of the company's activities. Second, he recommended that steps be taken to have the company's stock listed on the New York Stock Exchange, as it seemed advantageous to create a public market for the stock. Finally, he proposed that the company give its attention to the rapidly growing electronics industry in the United States. He felt that this industry offered unlimited scope for some very sound investments. It was his hope that the company would one day achieve a prominent position in the electronics field, if an early enough start were made. He felt that public stock ownership, with the consequent attention that would be paid to the company in financial circles, would enhance the company's ability to raise the possibly substantial amounts of loan capital required to finance the new program.

Mr. Hudson's proposals were accepted. The stock listing was commenced in July 1951, after a number of secondary stock offerings had been made out of the controlling stockholders' holdings, in order to gain wider public ownership of the stock.

INVESTMENTS IN THE ELECTRONICS INDUSTRY

Up to 1952 the company's policy had been, by and large, to set up the facilities it needed whenever it moved into any new field. There were obvious advantages to this policy being continued in the new electronics division. At the same time, the directors decided that they would, however, consider the acquisition of suitable electronics companies as going concerns, if the intangibles that would be acquired merited the purchase. They were thinking in terms of technical experience, proven research and processes, and patents, all of which would take time to build up if the division were to start from scratch. Therefore, a dual policy was followed. Several important acquisitions were made in the following seven years.

The Blake Electronics Corporation was one of the most important companies acquired. The founder of the company had developed a highly profitable business, based mainly on his highly superior electronics engineering abilities, rather than on massive capital investment. Part of the deal that he made with ITI was a ten-year renewable service contract, under which he would devote all his energies to the Blake division, with a salary guaranteed at not less than he had drawn previously. Under these circumstances, the directors of ITI were confident that the Blake division stood a good chance of remaining at least as profitable as it had been when run independently. An annual after-tax return of at least $500,000 was regarded as a reasonable expectation (refer to earnings record, Exhibit 6).

SOME ACCOUNTING POLICIES

The Martin Company's conservatism was nowhere more evident than in its accounting policies. The company's founder had believed that the utmost caution should be observed in the preparation of financial statements. He felt that this could only redound to the long-run benefit of the stockholders, who at that time were mainly members of his family and close business associates.

This attitude was continued even after the general public obtained an interest in the company in 1951. The management of the company was fully aware of the attitudes of the Martin family and their associates. They felt that the added element of responsibility to outside shareholders further justified conservative accounting. As Mr. Derek J. Hudson himself said in 1951, in the course of a discussion with the company's newly appointed certified public accountants: "Despite our conservatism, and perhaps because of it, this company has grown and prospered. We are very proud of the reputation we have in Boston financial circles. There has never yet been any move to liberalize our policies in order to show better results. I like to feel that our conservatism is a rock, or an anchor, a built-in stabilizing influence against temporary downturns. We know that our stockholders will never feel that we have been painting too bright a picture."

Close analysis of ITI's annual financial statements revealed several examples of conservatism. Among them was the recognition of the income of subsidiary companies excluded from ITI's consolidated statements because of the nature of their operations. (Their figures were not combined with ITI's; ITI's interest was shown as "investments in subsidiary companies.") The income of these companies was reflected in ITI's income statement only to the extent that cash dividends were received by ITI, despite the fact that the value of ITI's ownership was increasing annually by substantial amounts due to the subsidiaries' retention and reinvestment of earnings. A note to ITI's 1958 balance sheet indicated that the book value of ITI's equity in these companies was over $24 million at December 31, 1958, compared with the cost at which the investments were carried, of under $9 million.

A further example of conservatism was noticeable in the treatment of expenses incurred by the company in a small gas exploration venture started in 1957 in Alberta, Canada. Despite their faith in the eventual success of the exploration program, the directors decided to charge off annually all development expenses incurred. The amounts written off in the years 1957 and 1958 were $1.2 million and $2 million, respectively; no strikes had been made by December 31, 1958.

TREATMENT OF GOODWILL

Mr. Cooper had had to resolve the problem of amortization of goodwill before, but the amount involved had never been so large. As the meeting got under way, he summed up his own attitude as follows: "I don't like it. Never mind what reasons there are for our having paid it, like patents, or earning power, or what-have-you. The fact is that there are no real, physical, tangible assets to show for the money. I don't think it's right to give goodwill a permanent home on any balance sheet. I say, if it's not there, it can't come back at you. When it's written off there can never be any disputes about how we ought to value it, or what its life is, or anything. So I would like to see a quick write-off. After all, our profits can stand it." [See Exhibit 3 for ITI's nine-year financial summary.]

At this point there was an interjection from Mr. Abrahams, Blake's controller: "I know you don't let income tax regulations influence your judgment, Charles. However, we all know that amounts written off as goodwill are not an allowable deduction for tax purposes, because there is no way of determining its 'useful life,' as there is, for example, in the case of machinery.

"In effect, this means that goodwill write-offs come out of after-tax profits. So if we wrote off this $3,035,000 over five years, the write-off would more than absorb the after-tax net we expect from Blake. If we use 10 years, we absorb more than half. Is this realistic? Is it fair to us at Blake? This could mean that there would not be any substantial contribution to profits by Blake for quite some time. And yet, if we use a period, let's say, of fifteen or twenty years, I suppose we would be casting ITI's tradition of conservatism to the winds.

"Frankly, I don't see how you can reconcile your conservatism with the price you paid for Blake—although my personal opinion still is that you made a good purchase."

Mr. Hainsworth, the CPA at the meeting, had just recently been placed on the ITI account, and he asked Mr. Cooper to give him some examples of previous treatment of goodwill. "Well," said Mr. Cooper, "I recall that this kind of thing first came up back in 1951, when we made our initial acquisition in the electronics industry. There was about $800,000 in the purchase price for goodwill, maybe a little more. Seemed to me that an annual write-off of $100,000 would be a nice round figure, and would get rid of the goodwill pretty quickly. So that's what we did.

"Next time around, it was a small distributor that we bought. Paid the man $40,000 for goodwill, mainly because he had pretty good customers. Nevertheless, we wrote it all off in the year of acquisition. Much easier that way.

"It's been the same, pretty much, all along. Sometimes I take five years, if I'm not too happy about the company, or if it looks as if the company is in a tough competitive situation, or is vulnerable in some way. On the other hand, I did fix a twelve-year period a year or two ago, when we bought a very sound, well-established company that we were able to integrate into our own operations right away."

"But take Blake . . ." began Mr. Abrahams.

"Certainly. I'd be glad to," interrupted Mr. Hainsworth, who was known for his sense of humor.

"Exactly!" Mr. Abrahams went on. "I think Blake is a little gold mine. As I said before, ITI got a bargain, at nine times earnings. Most any investor would pay, oh, twelve times earnings for a strong little company like Blake, with its growth prospects. What I'm getting at is this, that I think that its superior earning power definitely has a money value, even though it's an intangible asset. Charles, I think that this is where you might really consider a long-term write off, because Blake's such a sound investment."

"I'm sorry, George," Mr. Cooper replied. "What if Blake should fizzle out after five years? Or look at it another way. Would the remaining unamortized goodwill lose some of its value if Blake settles down to a net of only $300,000? Seems to me that both of these would require some kind of recognition in our financial statements—and that would be recognition that we had made a mistake. Couldn't we just avoid the possibility of this sort of thing happening by adopting a fast write-off policy now, this year? The trouble with your non-conservative attitude is that at this stage we can't really tell how Blake is going to fit into our over-all operations. We're still expanding fast in electronics. Could be that in five years' time the Blake division is producing a completely different range of products, newly developed. What about the goodwill then? Will it just have disappeared? Should we write it off if this happens, because the goodwill that we bought won't be earning us anything? Gentlemen, I'm confused."

"Perhaps it might be helpful if I mentioned the position taken by the American Institute of CPA's," suggested Mr. Hainsworth. "They recommend that intangible assets having a limited life be charged off systematically over that life. However, they recognize that intangibles may be subjected to a systematic write-off even if there are no immediate indications that their life is limited. The purpose in writing off an intangible with a limited life, of course, is simply to recognize that an income statement matches applicable costs (such as the expiration of any asset with a limited life) against revenues produced. I guess that writing off the other kind—those with unlimited life—is just being conservative."

"Quite frankly, I see a different approach altogether," added Mr. Clarke, the fourth participant in the meeting (ITI Acquisitions Committee). "I, too, have every faith in Blake. In fact, I think it's going to earn us plenty more than $500,000 a year, in time. And I agree that an outside investor would easily have valued it at twelve times earnings, rather than the nine times we paid. I think we'd be quite conservative to value Blake, in total, at $6 million which is twelve times current earnings. This would mean that goodwill would stand at roughly $4,500,000, which I think is a truer evaluation of its real worth.

"And there's another thing. Take a look at the format we use for our published income statement [Exhibit 2]. There's no real detail there. Nobody will ever be able to tell from looking at it that we've charged this goodwill off, if we do. So why don't we just forget about writing it off? I think George would agree with this. That goodwill's worth every penny of $4,500,000—let's leave it at that on the books."

Required

1. How should the Blake goodwill be valued? Is Mr. Clarke's approach to its valuation valid?
2. What policy should ITI adopt with regard to the writing off of the Blake goodwill?
3. Appraise the usefulness of the conservatism practiced in ITI's accounting up to the date of the case.

EXHIBIT 1

Consolidated Balance Sheet as at December 31, 1958

Current assets:	
Cash	$ 25,428,000
U.S. Government securities, at lower of cost and market	32,376,000
Marketable securities, at cost	3,175,000
Accounts receivable (less reserves of $2,892,000)	58,080,000
Inventories at lower of cost and market	63,945,000
Prepaid expenses	4,054,000
Total current assets	$187,058,000
Other assets:	
Investments in and advances to unconsolidated subsidiaries, at cost	$ 8,590,000
Other investments, at or below cost	40,034,000
Miscellaneous other assets	12,509,000
Total other assets	$ 61,133,000
Properties and equipment, at cost:	
Land	$ 19,626,000
Buildings	74,001,000
Machinery and equipment	206,195,000
Construction in progress	30,146,000
	$329,968,000
Depreciation	128,010,000
Properties and equipment, net	$201,958,000
Goodwill, less amortization of $873,000	$ 2,720,000
	$425,869,000

Current liabilities:	
Accounts payable	$ 39,301,000
Loans payable	13,561,000
Long-term debt due within one year	592,000
U.S. and foreign income taxes	4,118,000
Other current liabilities	10,917,000
Total current liabilities	$ 68,489,000
Other liabilities	
Deferred income	$ 2,940,000
Deferred taxes	10,125,000
Pension and other reserves	8,592,000
Long-term debt	148,788,000
Minority stockholders' equity in consolidated subsidiaries	6,268,000
Total other liabilities	$176,713,000
Total all liabilities	$245,202,000
6% Preferred stock, $100 par	$ 11,473,000
Common stock, $1 par	4,135,000
	$ 15,608,000
Paid in surplus	56,674,000
Retained earnings	135,385,000
Total stockholders' interest	$207,667,000
	$452,869,000

EXHIBIT 2

Consolidated Income Statement for the Year Ended December 31, 1958

Income:	
Sales and other operating revenue items	$395,153,000
Interest and dividends	4,178,000
Total income	$399,331,000
Expenses:	
Operating expenses	$294,799,000
General and administrative expenses	31,612,000
Depreciation	18,853,000
Research and development	7,320,000
Exploration costs—Alberta gas project	1,983,000
Interest expense	8,547,000
U.S. and foreign income taxes	17,703,000
Total expenses	$380,817,000
Consolidated income less expenses	$ 18,514,000
Deduct: Outside stockholders' interest in net income of consolidated subsidiaries	616,000
Net income	$ 17,898,000
Retained earnings, December 31, 1957	127,153,000
	$145,051,000
Dividends paid in 1958	9,666,000
Retained earnings, December 31, 1958	$135,385,000

EXHIBIT 3 Financial Summary, 1950-1958

	Sales and Other Operating Revenue Items	Net Earnings (After Taxes)	Total Dividends Paid
1950	$202,128,000	$ 7,350,000	$ 5,125,000
1951	267,927,000	8,998,000	5,530,000
1952	287,185,000	7,771,000	5,297,000
1953	301,192,000	11,453,000	5,791,000
1954	376,196,000	13,462,000	6,764,000
1955	338,630,000	17,090,000	8,584,000
1956	398,705,000	18,004,000	9,886,000
1957	408,352,000	18,068,000	10,437,000
1958	395,153,000	17,898,000	9,666,000

EXHIBIT 4 Blake Electronics Corporation—Balance Sheet at December 31, 1958

Current assets:	
Cash	$ 532,000
Accounts receivable	976,000
Inventories, at lower of cost and market	585,000
Prepaid insurance	10,000
Total current assets	$2,103,000
Property, plant and equipment (net)	813,000
Other assets	21,000
	$2,937,000
Current liabilities:	
Accounts payable	$1,419,000
Accrued expenses	50,000
Federal income taxes	263,000
Total current liabilities	$1,732,000
8% Preferred stock, $100 par	$ 60,000
Common stock, $10 par	2,000
Retained earnings	1,143,000
Total stockholders' interest	$1,205,000
	$2,937,000

EXHIBIT 5

Blake Electronics Corporation—Income Statement for the Year Ended December 31, 1958

Net sales	$7,505,000
Cost of sales	6,032,000
Gross profit	$1,473,000
Operating expenses:	
Selling	$ 261,000
Administration	222,000
	$ 483,000
Operating income	$ 990,000
Other income (net)	2,000
Income before federal income tax	$ 992,000
Federal income tax	516,000
Net income	$ 476,000

Statement of Retained Earnings for the Year Ended December 31, 1958

Balance at January 1, 1958	$1,017,000
Net income	476,000
	$1,493,000
Dividends paid in 1958	350,000
Balance at December 31, 1958	$1,143,000

EXHIBIT 6

Blake Electronics Corporation - Analysis of Retained Earnings, December 31, 1958

	Earnings After Tax (Loss)	Dividends Paid	Retained Earnings Balance, Dec. 31 (Deficit)
1949*	$(47,000)	-	$ (47,000)
1950	(101,000)	-	(148,000)
1951	19,000	-	(129,000)
1952	168,000	-	39,000
1953	342,000	$150,000	231,000
1954	446,000	220,000	477,000
1955	462,000	250,000	689,000
1956	487,000	300,000	876,000
1957	491,000	350,000	1,017,000
1958	476,000	350,000	1,143,000

*The company was incorporated in March 1949 and commenced business the following month.

CASE 33

Miller Salt Company

In February 1961 Mr. Morgan Nicholas, president of Miller Salt Company,[1] was confronted with the problem of deciding how the newly acquired assets of Caribou Valley Salt Company [1] should be shown on Miller's balance sheet. He had held several conferences with his own executives, agents from the Internal Revenue Service, and representatives of the American Appraisal Company, but in the final analysis, he was the only one who could make this important decision relative to asset valuation on the company's balance sheet. Since Miller's fiscal year had ended on December 31, 1960, Mr. Nicholas knew he must come to his final decision very soon. Because of this deadline, he decided to devote the rest of the day to reviewing, analyzing, and pondering the results of his decision to acquire Caribou Valley Salt Company.

HISTORY OF MILLER SALT COMPANY

The Miller Salt Company, of Detroit, Michigan, was one of the oldest producers of salt in the country. It was founded late in the nineteenth century and had grown from a small one-man operation to a large multiplant company that accounted for from 5 per cent to 10 per cent of the total salt production of the United States. Selected income data for the Miller Salt Company are given in Exhibit 1.

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[1] Fictitious name.

The common stock of Miller had been closely held for many years but because of the company's rapid growth, financing had been solicited from outside sources, and by 1960 the capital stock of Miller was widely distributed. Mr. Nicholas had been appointed president in late 1958 during an executive reorganization motivated by shareholder dissatisfaction with the company's recent growth relative to the growth of the total salt market. The shareholders had also expressed dissatisfaction with the company's recent earnings record.

Miller Salt Company had had salt-producing and refining plants in Michigan, New York, Pennsylvania, and Ohio, prior to its acquisition of the Caribou Valley Salt Company. The company's primary market embraced heavy chemical industries in the North Central, Northeastern, and Middle Atlantic States. These chemical industries used salt in the manufacture of most sodium and chlorine compounds and in the production of petroleum products and plastics. Since most of these industrial consumers had branch plants in various parts of the country and because of the high cost of transporting salt for any great distance, Miller Salt Company might supply the northern branch of a company but be unable to supply its western branch because of the high cost of transporting salt from a northern mining and refining center to a western market.

Because of Miller's weak market position in the West and because many branch plants of companies, with which Miller had established lines of supply in the North and East, were located in the West, Mr. Nicholas as one of his first acts of office began negotiations to acquire an established market outlet in the West. He felt that such action would boost Miller's sales and improve its profit picture. After negotiating with Caribou Valley Salt Company on the basis of the value of its assets, the extent, strength, and brand loyalty of the Caribou Valley market, and the remaining recoverable deposits in the mine, Miller had acquired all the outstanding Caribou capital stock (held by the Chadwick and Northland families) for a cash payment of $4,500,000 in January of 1960. Miller also assured Caribou's top executives a berth in its executive cadres if they so desired.

HISTORY OF CARIBOU VALLEY SALT COMPANY

In 1917 John Chadwick and Walter Northland, two Los Angeles, California, chemical wholesalers, purchased Caribou Valley, a wooded peninsula jutting into the Pacific Ocean near San Juan Capistrano, with the intention of creating a private hunting and fishing preserve for Los

Angeles businessmen. The peninsula, 125 acres in size, was tucked deep in a bay and thus not only had access to the sea but also had access to adjacent swampland. While drilling for water to supply their lodge, Chadwick and Northland hit rock salt at 100 feet. Subsequent exploration disclosed that the peninsula was the cap of a massive rock salt deposit 6,300 feet in diameter and several thousand feet deep.

Roughly 15 per cent of the deposit was beneath the peninsula, but an additional 420 acres of developable deposit extended into the adjacent bay, which was owned by the State of California. A fifty-year lease of the state's mineral rights was secured in 1920, under which the state was to be paid six cents per ton of salt mined.

Since the salt deposit came to a peak under the peninsula, Chadwick and Northland had to sink a shaft to an 800-foot depth before the lateral area of the deposit was extensive enough to permit economical mining. Because of this, open-pit mining (mining from the land surface) had not been feasible. At the same time, mill buildings had been constructed, primary and secondary crushers, classifiers, evaporators, recrystallization equipment, and other machinery had been put into place. The mine began operation in 1922 at the 800-foot level and produced 2,620,932 tons of salt at this level prior to 1940, when the impurity of the salt at this level made it desirable to extend the mining operations to the 1,000-foot level; subsequently, work at the 800-foot level was abandoned. After the installation of certain new equipment, mining commenced at the 1,000-foot level and 4,757,086 tons of salt had been removed from the level by the end of 1959 (see Exhibit 2 for tonnage summary).

But at this point Caribou Valley Salt Company faced a dilemma. They had retained Wambly & Raymond, consulting geologists and mining engineers of Chicago, to determine (1) the remaining tonnage at the 1,000-foot level, (2) the feasibility of reworking the 800-foot level, and (3) the possibility of operating a third level at 1,200 feet. The engineers' report estimated that only 2,200,000 tons of rock remained at the 1,000-foot level (⅚ths of which was on state land), that the 800-foot level had been "worked out" on the basis of the quality of rock salt necessary to make the present shaft-mining operation feasible, and that if the shaft was extended to the 1,200-foot level, new hoists, drive motors, and ventilating equipment would have to be installed to support the increased mine depth. The salt deposit extended down several thousand feet so the mineral was there but the problem existed in getting it out. The report also indicated that a large amount of salt would have to be left intact at the 1,200-foot level in order to support the weight of the salt and earth above the tunnels since the salt at this level had a relatively low compressive strength. At best, the report indicated that only marginal safety could be maintained at the 1,200-foot level.

Mr. Chadwick and Mr. Northland, both in their late 60's, were quite upset over the geologists' report and because of this report and the fact that neither of them had heirs who were interested in running the company, they decided to sell the company. It was at this point that Mr. Nicholas of Miller Salt Company negotiated the purchase of Caribou Valley Salt Company.

MILLER'S ACQUISITION OF CARIBOU VALLEY

Mr. Nicholas became interested in Caribou Valley because of its strong penetration of the western salt market. Caribou Valley Salt Company had built a solid market position for its product and had been able to acquire many major industrial salt users in the West as its customers. It had been able to do this by insuring exceptional quality, by guaranteeing prompt delivery on short notice, and by selling for less than national competition because of lower freight costs relative to its closeness to the market. The product was considered by many industrial concerns as the finest that could be obtained (see Exhibit 3).

Also, Mr. Nicholas felt that a new mining technique that was in the final stages of development in Miller's research laboratory could be profitably employed both in mining salt from depths greater than 1,000 feet and in recovering salt from the 800-foot and 1,000-foot levels which had previously been considered of a quality too poor to mine. However, controversy existed among various mining experts as to whether or not this new technique would be applicable at the Caribou Valley mining property. Miller had no previous experience in shaft mining as all their mines were of the open-pit or forced-well variety. A forced-well mine was operated by forcing water under pressure down a pipe into the layer of salt. The water dissolved the salt and was then forced out another pipe as additional fresh water was forced into the cavity. The salt water was then evaporated, leaving salt behind as a residue. Mr. Nicholas was confident that even if the new mining technique did not prove operational at the Caribou Valley mine, Miller would still be able to purchase salt from other local salt mines, process it on Caribou Valley's recrystallization equipment, and sell it through Caribou's sales organization under the well-established Caribou Valley brand name.

Aside from the operational aspects of the Caribou Valley property, Miller faced the problem of establishing a valuation on the assets acquired from Caribou Valley. This was a particularly difficult task since Miller had paid $4,500,000 for Caribou's total net worth of only $2,717,110 (Exhibit 4). The difference of $1,782,890 must then have been paid for goodwill, for assets not shown on Caribou's balance sheet, or because Miller considered that Caribou's assets were worth more than the amount at which they were shown on the balance sheet. Mr. Nicholas, Mr.

Jamieson (Miller's controller), and other members of the board of directors, felt that an appraisal by an outside consultant was necessary in order to properly determine the value at which the new assets should be carried. They also specified that only the fixed assets (property) should be appraised since it was their opinion that the current assets could be brought onto Miller's books at Caribou's book value. The notes and accounts receivable had been guaranteed collectible by Northland and Chadwick and the inventory of $323,780 was composed of $199,200 of boxed salt against which purchase orders had already been received, $49,800 in bags, bales, and labels which Miller expected to use immediately in its packaging operations, and $74,780 of salt in the process of being recrystallized for which a ready market existed.

Mr. Nicholas felt that a correct or reasonable property valuation was extremely important for three reasons:

(1) The asset valuation established would be used in determining the amount of depreciation allowed by the Internal Revenue Service and would therefore have a direct effect on the amount of profit remaining for Miller's shareholders after taxes. The importance of this item was further stressed by Mr. Schwingle of American Appraisal in his initial conference with Mr. Nicholas. (See section on property appraisal.)

(2) The asset valuations would be used for casualty insurance assessments. This involved maintaining appropriate amounts of insurance as well as affecting coinsurance requirements.

(3) Finally, the appraisal was needed for internal and external accounting purposes, that is, relation of costs to pricing, return on investment, extent of dividend payout or retention to provide for future equipment replacement, booking depreciation, and others. Further, Mr. Nicholas felt that since he had only recently been appointed president, the shareholders would be carefully scrutinizing any figures reported in the 1960 annual report.

Because of the importance of setting "correct" values on the assets, Mr. Nicholas retained the American Appraisal Company of Milwaukee, Wisconsin, to carry out this appraisal work.

Exhibit 4 gives Caribou's balance sheet as compiled by Caribou's controller as of the date of acquisition.

ORGANIZING FOR THE PROPERTY APPRAISAL

During the initial conference which was held between Mr. Nicholas and Mr. Schwingle, American Appraisal's representative from the Milwaukee office, Mr. Schwingle stated that he felt the paramount problem faced in the appraisal was that of allocating the $4,500,000 purchase price to the tangible and intangible, depreciable and nondepreciable assets of Caribou in such a way that full benefit could be taken of the 1954 Revenue Code.

As permitted by the code, Miller could bring the acquired assets onto their tax books at cost, which was the price which had been paid for the Caribou stock. However, the code stipulated that the price paid (cost to Miller) must be allocated "equitably" to all tangible and intangible assets acquired. The code did not allow any depreciation deduction for goodwill and certain other types of intangible assets. It would therefore be to Miller's advantage to set as high a value on depreciable assets, such as machinery, buildings, and office equipment, as possible, thus minimizing the allocation to nondepreciable assets such as goodwill.

Moreover, it would be to Miller's advantage to minimize the value placed on the salt deposits and the mine shaft, since the code permitted a percentage depletion deduction on these assets, regardless of the original cost assigned to them. Thus, the smaller the value assigned to depletable assets, the higher the value that could be assigned to depreciable assets, with no effect on the depletion deduction allowed under the code.

Depletion was defined in the code as, "the gradual diminution of the original amount of a mineral deposit because of any operation which

Example 1: Percentage Depletion Method

Gross salt sales	$4,000,000
Cost of sales	2,000,000
Gross profit	$2,000,000
Less other operating and nonoperating expenses	$1,000,000
Net income before tax	$1,000,000
Less depletion deduction of 10% of gross sales (but not to exceed 50% of 1,000,000 or be less than $50,000 computed as the deduction under the cost of units method, example 2)	400,000
Taxable income	$ 600,000

Example 2: Cost of Units Method

Where: Original cost of salt deposit and mine shaft = $500,000

Estimated tons of salt in deposit = 5,000,000 tons, therefore the cost imputed to each ton mined = $500,000 ÷ 5,000,000 tons = 10¢ unit cost per ton mined

Gross salt sales (500,000 tons)	$4,000,000
Cost of sales (other than cost of raw salt)	2,000,000
Gross profit	$2,000,000
Less other operating and nonoperating expenses	1,000,000
Net income before tax	$1,000,000
Less cost of salt computed under the cost of units method (500,000 tons × 10¢ per ton)	50,000
Taxable income	$ 950,000

removed the mineral from its natural state. In such a case, the owner or lessor of the deposit is entitled to a depletion allowance of 10 per cent (on salt deposits) of gross sales from the property. However, this allowance must not exceed 50 per cent of the property's taxable income, but may not be less than the deduction computed under the cost of units method." Once a company had adopted either of these methods, it was committed to this method and could not elect to change from one to the other. Under the cost of units method, the cumulative total of the annual cost recoveries ($50,000 in the example) was not allowed to exceed the original purchase price ($500,000 in the example); whereas under the percentage depletion method, the original purchase price had no bearing on the amount allowed as a depletion deduction.

Mr. Schwingle further pointed out, "The task cannot involve setting unrealistically high valuations on property units with the sole purpose being to allocate the entire purchase price to depreciable assets, but it must involve identifying *all* depreciable assets and establishing a supportable value thereon. The appraisal must exhibit high-level professional integrity in order to make the allocation acceptable to the Internal Revenue Service."

After an estimated appraisal fee of $25,000 had been agreed upon, American's field dispatch unit assigned three men from its structural department to appraise the buildings, four men from the mechanical department to evaluate machinery and equipment, and two men to study the land. Several additional men were assigned to do research on special projects such as leasehold improvements, lease and royalty contracts, and costs and operation methods at other competitive salt mines in various geographical areas. The final results of the appraisal have been reproduced as Exhibit 5. This exhibit indicates for each major asset item: (1) original cost, (2) accumulated depreciation to December 31, 1959, on Caribou's books, (3) net book value on Caribou's books, (4) "cost of reproduction new," (5) fair market value, and (6) the assets' estimated remaining life.

PERFORMANCE OF THE PROPERTY APPRAISAL

In general, the American Appraisal Company structured its appraisal operation as diagrammed in Exhibit 6. Specifically, in appraising the assets of Caribou Valley Salt Company, American's engineers were confronted with four major tasks:

1. *To identify all tangible and intangible, depreciable and nondepreciable assets of Caribou Valley.*

2. *To establish the "cost of reproduction new" of each of these assets.* Cost of reproduction new was the amount that would be required to fully recreate an asset in its original condition at today's costs. This figure

became a partial bench mark for calculating present values after physical depreciation and functional obsolescence were considered.

In setting the cost of reproduction new for Caribou's land, American's field appraisers checked sales of similar salt properties within California and in other parts of the nation. In the selection of these comparable land sales, several conditions had to be present if they were to have validity. The sales had to occur, for example, in a reasonably free market with willing sellers and willing buyers. There must have been equity to both parties to the sale and both parties must have had equal access to the facts about the property. Finally, there must have been time for full market exposure of the property. Once the comparable sales data were collected, the appraisers made adjustments to eliminate circumstances peculiar to each sale so that they would become truly comparable to the Caribou case.

In establishing the cost of reproduction new of the mine shaft, the canal, and the buildings, American's appraisers determined what materials in what quantities, what input of labor, what overhead expenses, and what other elements of cost would be required to rebuild each of these facilities new at the date of the appraisal. Information to support these cost findings was obtained partially from American's architectural and structural pricing library at Milwaukee and partially from checks with contractors, labor unions, and materials suppliers in the Caribou Valley area.

The mechanical valuation engineers who worked on cost of reproduction of machinery and equipment relied heavily on American's mechanical pricing library at Milwaukee, but checks were also made with equipment manufacturers. Perhaps most important, the mechanical men were specialists in mining equipment and familiar with the machinery and its characteristics.

The cost of reproduction new for office furniture and fixtures and automobiles and trucks was determined in a manner similar to that for machinery and equipment described immediately above.

The salt deposits were valued with the aid of consulting geologists who calculated the remaining mineable tonnage at the 800- and 1,000-foot levels. American's appraisers then figured the cost of recovery, royalty payments for salt in the state lands, royalty savings on the owned lands, processing, and other costs in setting value. No value was assigned salt below the 1,000-foot level because its recovery was speculative and because its development would not occur for at least ten years. Precisely what cost and mining conditions would be realized in several years could not be known at the time of the appraisal, and consequently, no supportable value could be given the lower deposits.

Preliminary field values were sent to American's Milwaukee office where they were checked, calculated, and extended.

3. *To establish the fair market value of the assets.* Fair market value—the figure that would be equivalent to current book value—was not necessarily cost of reproduction less accrued depreciation with provision for functional obsolescence, nor was it the amount that would be obtained in the used machinery and equipment market. Fair market value in this case, Schwingle reasoned, would be the value of the assets as part of a going concern.

The hoist and cage equipment in the mine shaft, for example, were old, and no mining company would install such equipment today. If offered in the used equipment market, the hoist and cage would probably have little more than scrap value. Yet they had been well maintained and were functional. To Caribou Valley, therefore, the equipment had value as part of the enterprise substantially above scrap and used equipment value. The fair market value as determined by American was cost of reproduction less accrued depreciation from all causes, less a penalty for the slight inefficiency and added operating cost induced through use of this equipment as opposed to more modern machinery.

On the other hand, the current used automobile market was used as a base in determining fair market value for automobiles, since used autos were exchanged freely between sellers and buyers without consideration of their value as part of the enterprise.

4. *To establish remaining useful lives of the assets.* In determining the remaining useful lives of the buildings, machinery, and equipment, mine shaft, canal, office furniture and fixtures, and automobiles and trucks, American's valuation engineers relied heavily on their judgment about the assets and sought to determine the amount of time remaining before each asset would either exhaust its useful life because of wear and tear or become functionally obsolete. In the case of power shovels and mucking machines used in the mine, the appraisers knew that their physical lives would extend several years beyond the time at which new equipment would make them functionally obsolete, and the estimated date of functional obsolescence was therefore used to set the remaining lives on these pieces of machinery.

In setting a thirty-five-year life on the canal, American's engineers estimated the time that would elapse before silting and slippage would require redredging equivalent to a complete rebuilding of the canal.

The remaining useful lives established varied from asset to asset and in American's Milwaukee office as the final report was given executive review, argument developed because the lives of several assets were longer than the estimated life of the sale deposits. "If the salt gives out in ten years," Mr. Gaus, a field review man, argued, "what earthly value have the buildings, the machinery, and the mine shaft?" Schwingle replied that although the salt below 1,000 feet had not been valued and had been given no life, a new process which was in the final stages of development at Miller might permit its exploitation. Besides, he continued, the surface works could be used to process salt from other nearby sources.

In final executive review at Milwaukee, a determination had to be reached as to whether the total appraised value could be supported by the anticipated profits that the business would earn. Based on experience of the five prior years, and without attempting an income forecast, the valuation study indicated that a profit of approximately 10 per cent on the investment (after taxes and depreciation) could conservatively be anticipated annually over the next ten years. The annual aggregate weighted depreciation, if figured on a straight-line basis, was given at 8.37 per cent. When combined, the profit on the investment and the recovery of the investment yielded an annual cash flow of 18.37 per cent. This figure was high enough to justify the purchase price and the fair market value established by the apparisal, and it compared well with comparable rates gathered in analysis from ten other similar mining companies.

INTERNAL REVENUE SERVICE REACTION TO PROPERTY APPRAISAL

Miller Salt Company submitted American's appraisal of its acquired assets to the I.R.S. for a ruling to reasonability. In a subsequent conference, which was held with two I.R.S. agents, the I.R.S. contested the valuation placed on the following items:

(1) *Valuation of Salt Deposits*—The I.R.S. agents contended that the ten-year estimated life was unrealistic, and in their opinion the life should be some indefinite period. They also contended that the value of the deposits should be $850,000 rather than the $273,900 as proposed by the American Appraisal Company.

(2) *Value of Mine Shaft*—It was Mr. Howe's (I.R.S. agent) opinion that the "hole in the ground" had not decreased in value since its inception, and because American's appraisal set the cost of reproduction for the entire shaft including shorings at $1,141,250, Mr. Howe believed the value of the hole should be related to that amount. The I.R.S. did not consider the mine shaft as a depreciable asset but ruled that it was depletable property and therefore no depreciation could be allowed on the shaft itself. From this, he contended that the fifteen-year life set on the shaft was completely erroneous.

(3) *Canal*—Why should a canal be considered as a depreciable asset? Mr. Howe contended that a canal was similar to land and therefore no depreciation could be claimed.

(4) *Inconsistency of Estimated Lives*—Why weren't the various valua-

> tions based on a single consistent term, say ten years, the date when the state lease was to expire? Mr. Howe stated that it was inconsistent to assign salt deposits a ten-year life, the mine shaft a fifteen-year life, buildings an eighteen-year life, and so on. Mr. Howe further commented that in light of the inconsistencies, the eighteen-year life of the building was far too short a time. At this point Mr. Nicholas had charged Mr. Howe with being inconsistent in his criticism of inconsistency. Mr. Howe replied that he did not intend to imply that he or the I.R.S. would have accepted American's estimated lives even if a consistent ten-year term had been used.

No final agreement had been reached with the I.R.S. agents on any of the above items, but a second meeting had been scheduled. Legal counsel for Miller Salt Company said that negotiations with the I.R.S. might continue for several months and perhaps longer if the company decided to challenge the final I.R.S. decision in the tax courts. In the lawyer's opinion, Miller's tax position would not be unduly prejudiced if the company handled the transaction differently for book (stockholder-reporting) purposes because differences between tax and book treatments were common, particularly for companies permitted to deduct depletion allowances for tax purposes.

REACTION OF MILLER SALT COMPANY EXECUTIVES TO AMERICAN'S PROPERTY APPRAISAL

As Mr. Nicholas contemplated what decision he should make relative to the valuation of the acquired property assets on Miller's books, he mulled over the points of view expressed by various members of Miller's board of directors at a meeting where the acquisition of Caribou Valley had been the topic of discussion.

Mr. Jamieson, Miller's controller, advocated the use of Caribou's book values, as of the date of acquisition, as the basis at which the acquired property should be carried. He agreed that for tax purposes the appraised values should be used, but he contended that the assets weren't worth any more to Miller than they had been to Caribou, and thus the book value ($1,221,346) of the property assets should be shown on Miller's books. He admitted that his method might be on the conservative side, but that this was far superior to using appraisal values which had obviously been stated at a maximum for income tax purposes. He commented, "American's appraisal is absolutely silly. They say that the assets we purchased are worth more than we paid for them ($3,407,605.56 appraised property + $2,196,181.00 current assets − $769,254.00 current liabilities = $4,834,532.56 net worth purchased for $4,500,000), and this indicates to me that American arrived at inflated asset values. This is fine for our tax books, but isn't it misleading to management and to our stockholders?" He thought that the difference between the purchase price and the total asset book values should be written off as an extraordinary loss of the period, but justified in the annual report on the basis that such a loss was necessary to the establishment of a foothold in the western market. This idea had not appealed to Mr. Nicholas because he was afraid that the shareholders would become quite perturbed if a large acquisition loss appeared on the first income statement after he had become president, regardless of what justification he gave.

Mr. Crowder, a director of Miller and partner in a local stock brokerage house, stated that he saw no reason why the assets should not be shown at their appraised values. After all, he pointed out, "We hired the American Appraisal Company to evaluate our assets, and if we can't rely on their judgment and values which have been meticulously determined, we had better give up. There is absolutely no justification for tinkering around with the values they arrived at." He further pointed out that the shareholders were interested in the *actual* realistic values of the assets which had been purchased, and not in some meaningless book value as determined by Caribou's bookkeeper. "The book value shown on Caribou's balance sheet has absolutely no relevance in determining the asset values which we should show on our books," was his concluding remark.

Finally, Mr. Jevelekian, vice president of marketing, had disagreed violently with this approach and told Mr. Crowder that he had evidently forgotten the prime reason for purchasing Caribou in the first place. He reminded the board that the prime reason for purchasing Caribou had been to acquire its western market and brand image and not for the value of the mining assets themselves. He agreed with Jamieson that the assets acquired should be shown at book value, not at appraised value, but that the difference between the purchase price and book value should be shown as the value of the markets and customer lists which had been built up under the Caribou Valley brand name and for which the company had been acquired. He even went one step further than Jamieson when he said, "For that matter, we could disregard the value of the assets *completely* and could allocate the entire purchase price to 'value of markets acquired' which would then be shown as a permanent asset on our balance sheet. Isn't this the most accurate presentation of the facts, since we don't know that further mining of salt is possible even with our new method?"

After mulling over each of these points of view, after considering the comments made by the I.R.S. agents after their examination of American's appraisal, and with American's appraisal before him, Mr. Nicholas thought he could now decide on a course of action relative to valuation of Caribou's property assets which he felt would be reasonable.

EXHIBIT 1

Comparative Income Statistics
(All values given in thousands)

Miller Salt Company

	Net Sales	Net Income	Dividends Paid
1950	7,271	$ 913	$ 448
1951	8,840	1,058	498
1952	9,109	979	498
1953	8,898	872	498
1954	10,275	2,208	797
1955	10,956	1,992	996
1956	12,035	2,108	1,096
1957	11,703	1,743	1,096
1958	12,450	1,735	946
1959	12,915	1,660	946

Caribou Valley Salt Company

	Net Sales	Net Income	Dividends Paid
1950	1,743	$220	N.A.
1951	2,075	232	N.A.
1952	2,457	221	N.A.
1953	2,158	206	N.A.
1954	2,615	249	N.A.
1955	1,834	156	N.A.
1956	2,125	191	N.A.
1957	2,507	237	N.A.
1958	2,817	277	N.A.
1959	3,514	520	N.A.

EXHIBIT 2

Salt Production of the Caribou Valley Salt Company
(In tons)

	Source		Total
Year	Caribou Owned Land	State Leased Land	Production
1959	15,874	432,723	448,597
1958	13,018	311,403	324,421
1957	6,402	283,079	289,481
1956	34,375	205,207	239,582
1955	80,097	132,675	212,772
1954	168,682	130,343	299,025
1953	165,734	82,652	248,386
1952	146,346	98,836	245,182
1951	156,953	79,033	235,986
1950	170,963	66,749	237,712
1922-1940 800-foot level	N.A.	N.A.	2,620,932
1941-1959 1,000-foot level	N.A.	N.A.	4,757,086
Total production 1922-1959	N.A.	N.A.	7,378,018

EXHIBIT 3

Comparative Statement of Income of Caribou Valley Salt Company for the Periods Ended 31 December 1959 and 1958

	1959	%	1958	%	Increase Decrease-
Tons sold	442,075		323,693		118,382
Gross sales	$3,530,763		$2,825,306		$705,457
Less adjustments	16,532		8,382		8,150
Net sales	$3,514,231	100.0%	$2,816,924	100.0%	$697,307
Cost of sales	1,797,896	51.2	1,607,156	57.1	190,740
Gross profit	$1,716,335	48.8%	$1,209.768	42.9%	$506,567
Operating expenses:					
Selling	499,250	14.2	500,595	17.8	$ -1,345
Administrative	399,989	11.4	322,548	11.4	77,441
Total operating expenses	$ 899,239	25.6%	$ 823,143	29.2%	$ 76,096
Gross profit from operations	$ 817,096	23.2%	$ 386,625	13.7%	$430,471
Other income credits:					
Total income credits	$ 55,801	1.6%	$ 18,761	.7%	$ 37,040
Gross income	$ 872,897	24.8%	$ 405,386	14.4%	$467,511
Other income charges:					
Total income charges	$ 57,769	1.6%	$ 7,016	.3%	$ 50,753
Net income before provision for income taxes	$ 815,128	23.2%	$ 398,370	14.1%	$416,758
Provision for income taxes	294,567	8.4	120,975	4.3	173,592
Net income after provision for income taxes	$ 520,561	14.8%	$ 277,395	9.8%	$243,166

EXHIBIT 4

Comparative Balance Sheet of Caribou Valley Salt Company, 31 December 1959 and 1958

ASSETS	1959	1958	Increase Decrease-
Current assets:			
Cash	$1,051,701	$ 825,340	$226,361
Notes and accounts receivable:			
Customers	800,559	458,042	342,517
Sundry	24,291	18,118	6,173
Total notes and accounts receivable	$ 824,850	$ 476,160	$348,690
Less reserve for doubtful accounts	4,150	4,150	0
Net notes and accounts receivable	$ 820,700	$ 472,010	$348,690
Inventories	323,780	298,647	25,133
Total current assets	$2,196,181	$1,595,997	$600,184
Property:			
Land	$ 70,665	$ 7,055	$ 63,610
Salt deposits—arbitrary constant	$ 100,000	$ 83,000	$ 17,000
Shaft construction and developments	309,971	309,971	0
Total depletable property	$ 409,971	$ 392,971	$ 17,000
Less reserve for depletion	282,641	277,375	5,266
Net depletable property	$ 127,330	$ 115,596	$-11,734
Buildings, machinery, and equipment	$2,351,791	$2,278,636	$ 73,155
Automobiles and trucks	62,302	73,310	-11,008
Furniture and fixtures	51,780	54,299	- 2,519
Canal development	47,717	47,717	0
Total depreciable property	$2,513,590	$2,453,962	$ 59,628
Less reserve for depreciation	1,520,341	1,502,181	18,160
Net depreciable property	$ 993,249	$ 951,781	$ 41,468
Construction in progress	$ 30,102	$ 21,703	$ 8,399
Net property	$1,221,346	$1,096,135	$125,211
Intangible assets:			
Rights of way	$ 747		$ 747
Deferred charges:			
Prepaid insurance	59,002	66,279	-7,277
Dissolver expense	4,262	6,611	-2,349
Other	4,826	6,407	-1,581
Total deferred charges	$ 68,090	$ 79,297	$-11,207
Total assets	$3,486,364	$2,771,429	$714,935
LIABILITIES AND NET WORTH			
Current liabilities:			
Vouchers payable	$ 267,746	$ 111,032	$156,714
Dividends payable		70,787	-70,787
Accrued taxes	314,016	139,284	174,732
Other accrued accounts:			
Salaries and wages	$ 10,762	$ 12,960	$ -2,198
Bonuses and commissions	146,882	97,392	49,490
Miscellaneous accrued accounts	29,848	28,623	1,225
Total other accrued accounts	$ 187,492	$ 138,975	$ 48,517
Total current liabilities	$ 769,254	$ 460,078	$309,176
Net worth:			
Capital stock:			
Common—authorized, 50,000 shares without par value; issued and outstanding, 50,000 shares	$1,018,485	$1,018,485	
Total capital stock	$1,018,485	$1,018,485	
Surplus:			
Capital	$ 62,393	$ 62,393	
Earned	1,636,232	1,230,473	$405,759
Total surplus	$1,698,625	$1,292,866	$405,759
Total net worth	$2,717,110	$2,311,351	$405,759
Total	$3,486,364	$2,771,429	$714,935

EXHIBIT 5

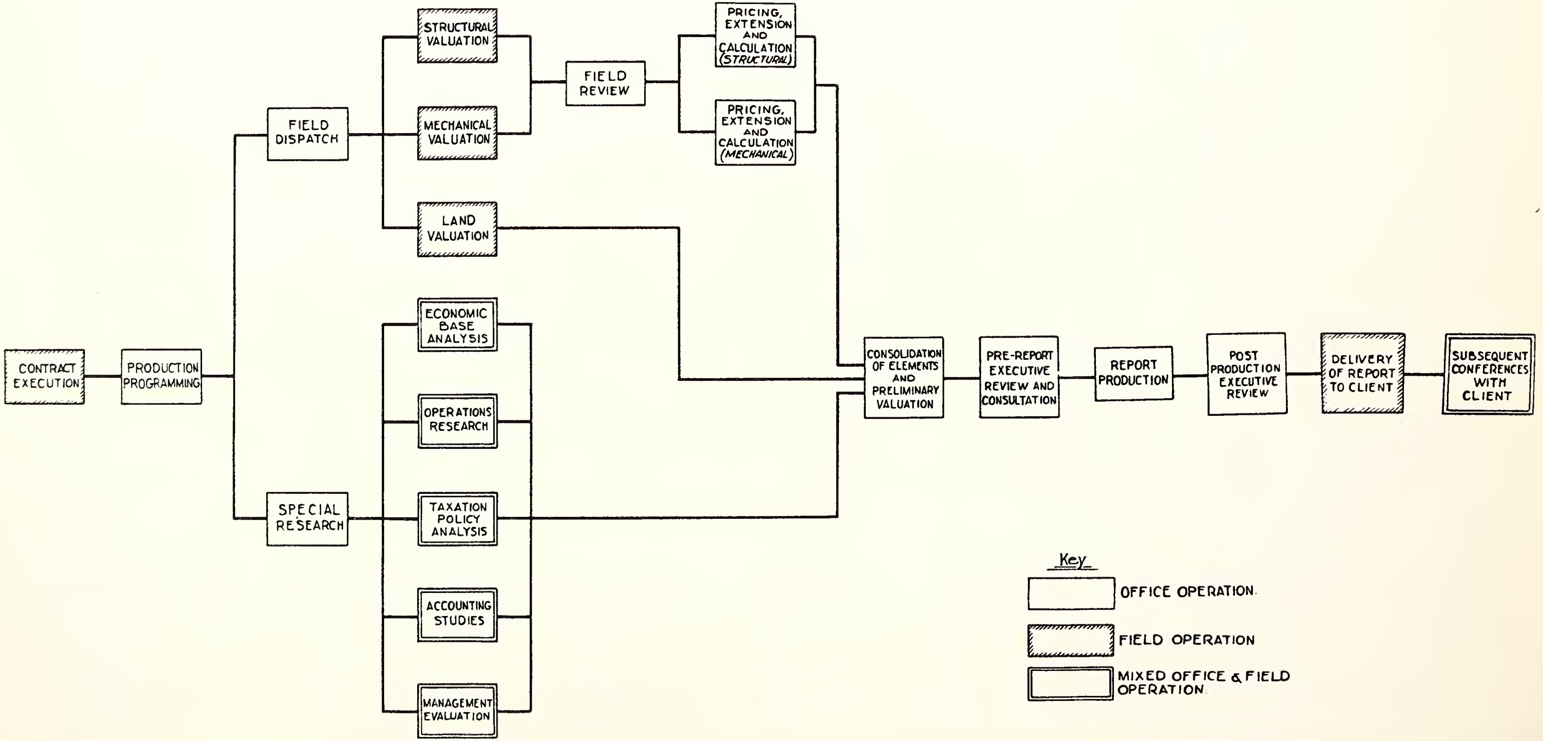
Book Value, Reproduction Value New, and Fair Value of Caribou Valley's Property Assets

Property	Asset Value on Caribou Valley Books			American Appraisal Valuation		
Item	Original Cost	Accumulated Depreciation To 12-31-1959	Net Book Value	Cost of Reproduction New	Fair Market Value	Estimated Remaining Life (Years)
Land	$ 70,665	-	$ 70,665	$ 29,880.00	$ 29,880.00	-
Mine shaft	309,971	$ 282,641	27,330	1,141,250.00	456,500.00	15
Canal	47,717	6,410	41,307	55,361.00	44,288.80	35
Buildings	954,509	732,653	221,856	1,694,766.58	1,010,538.03	18
Machinery & equipment	1,397,282	744,872	652,410	2,517,775.42	1,477,817.75	10
Office furniture & fixtures	51,780	28,106	23,674	73,460.40	49,232.81	8
Automobiles & trucks	62,302	8,300	54,002	70,006.03	65,448.17	4
Salt deposits—Owned)				24,900.00	24,900.00	10
Salt deposits—State leased)	100,000	—	100,000	249,000.00	249,000.00	10
Totals	$2,994,226	$1,802,982	$1,191,244	$5,856,399.43	$3,407,605.56	-

Source: The American Appraisal Company F-145

EXHIBIT 6

American Appraisal Company's Operations Flow Chart


CONTRACT EXECUTION
PRODUCTION PROGRAMMING
FIELD DISPATCH
SPECIAL RESEARCH
STRUCTURAL VALUATION
MECHANICAL VALUATION
LAND VALUATION
ECONOMIC BASE ANALYSIS
OPERATIONS RESEARCH
TAXATION POLICY ANALYSIS
ACCOUNTING STUDIES
MANAGEMENT EVALUATION
FIELD REVIEW
PRICING, EXTENSION AND CALCULATION (STRUCTURAL)
PRICING, EXTENSION AND CALCULATION (MECHANICAL)
CONSOLIDATION OF ELEMENTS AND PRELIMINARY VALUATION
PRE-REPORT EXECUTIVE REVIEW AND CONSULTATION
REPORT PRODUCTION
POST PRODUCTION EXECUTIVE REVIEW
DELIVERY OF REPORT TO CLIENT
SUBSEQUENT CONFERENCES WITH CLIENT
Key
OFFICE OPERATION
FIELD OPERATION
MIXED OFFICE & FIELD OPERATION

CASE 34

Textron Inc. (A)

Accounting for Federal Income Taxes

In 1961, Textron Inc., was a large multidivisional industrial corporation operating 90 plants with 29,000 employees in the United States and Canada. This case is the first of a series describing several problems faced by Textron's management in the preparation of annual financial statements for distribution to stockholders. This first case provides certain background information about the company and raises the issue of accounting for Federal income taxes, a problem which recurs in several subsequent cases in this series. The remaining cases deal with the establishment of accounting policies concerning the acquisition of new subsidiaries; the deferral of research and development costs; the amortization of bond discount; and the determination and reporting of costs and liabilities for long-term lease obligations and for a casualty self-insurance plan.

HISTORY OF TEXTRON INC.

Textron was organized in 1928 and incorporated in Rhode Island under the name of Franklin Rayon to succeed to the business of two synthetic yarn dyeing and processing companies. In 1939, its name was changed to Atlantic Rayon Corporation, in 1944 to Textron Incorporated, in 1955 to Textron American, Inc., and finally in 1956 to Textron Inc. In this series of cases, the name Textron will be used to refer to Textron Inc., or the appropriate predecessor corporation.

Prior to World War II, Textron's annual sales volume never exceeded $10 million, and the Company operated at a profit in every year except 1938 and 1940. The business expanded during the war, and in 1943 the Corporation began producing and selling cloth. In 1945 and 1946, Textron acquired several large textile companies, and the sales volume in 1946 exceeded $100 million with a profit after taxes of more than $7,400,000.

Plans were made during the war for the peacetime organization of Textron as an integrated operation for the manufacture and sale of brand-named consumer products. This "vertical integration" combined under one management the operations of spinning, weaving, finishing, designing, sewing, and merchandising, which were usually performed by independent companies. Textron's bold experiment in integration proved unsuccessful, however; in 1949 the sales volume dropped to $67 million and, as a result of heavy inventory losses, the company sustained an operating loss of nearly $1,700,000. By early 1953, the company had completely disposed of all its operations in the consumer products field and was concentrating on the manufacture of synthetic and cotton cloth.

During the postwar years, the textile industry in the United States experienced a severe readjustment, not only in the type of cloth manufactured (the switch from cotton and wool to synthetic fabrics), but also in the location of efficient manufacturing facilities (the switch from old multi-story plants in New England to new, one-story, windowless, air-conditioned plants in the South). At the end of 1947, Textron operated 27 plants, 17 in New England and 10 in the South. In the eight years that followed, the company disposed of plants having a depreciated book value of $23,500,000, and invested $44,500,000 in new plants and production equipment. At the end of 1953, Textron operated only 15 plants located in North Carolina, South Carolina, Georgia, and Puerto Rico.

TEXTRON'S DIVERSIFICATION PROGRAM

In mid-1952, Textron's stockholders approved a change in the corporate by-laws to permit the company to engage in other types of businesses outside of the textile industry. Management announced that its goal in requesting this change was both to increase and to stabilize the sales volume and earnings of the company. The textile industry was highly competitive and subject to severe cyclical fluctuations, and management hoped to expand the company sufficiently so that the textile business was no more than 50 per cent of the total enterprise.

The company's first diversification move was made on September 30, 1953, with the acquisition of the inventories, trade name, and business of the F. Burkart Manufacturing Co. of St. Louis, Missouri. The company, a major producer of cotton batts and padding for the automobile, furniture, and mattress trades, was purchased for $1,801,052. On January 8, 1954, all the stock of Dalmo Victor Company, a leading manufacturer of airborne radar antennae and related equipment, was acquired. Three hundred thousand dollars of the purchase price was paid in cash, $1,200,000 was to be paid in installments beginning in 1955 and, in order for Textron to retain ownership of the stock after December 31, 1963, an additional $1,500,000 was to be paid on or before that date. On March 25, 1954, Textron purchased all the outstanding stock of the MB Manufacturing Company, Incorporated, of New Haven, Connecticut, for $1,750,000, plus an additional $250,000 to be paid to the extent that the net worth was not reduced by undisclosed liabilities. MB was a manufacturer of aircraft engine mounts and vibration testing and eliminating equipment. Textron's annual report for 1954 commented on the effectiveness of the diversification program up to that time by pointing out that, although total corporate profits were $1,262,000, the profits from the non-textile operations had been $4,298,000, an amount which exceeded the losses on textile operations during the year.

In 1954, Textron began acquiring the common stock of American Woolen Company, the world's largest manufacturer of woolen and worsted fabrics, by purchases on the open market and by direct offers to American Woolen's stockholders. Textron obtained sufficient stock to achieve control of American Woolen, and on February 24, 1955, American Woolen was merged into Textron. Simultaneously another large textile producer, Robbins Mills, Inc., was merged into Textron. The details of this merger are described more completely in the next section of this case, but the net result, briefly, was to double Textron's total assets and provide the company with sufficient excess working capital to permit an acceleration of the company's diversification program. Also, as a result of the Textron-American Woolen-Robbins merger, the surviving corporation (Textron) succeeded to the net operating-loss carry-overs of these companies. The loss carry-overs expired within five years if not used to offset taxable income; therefore, the existence of this time limit exerted considerable pressure on Textron's management to acquire profitable operations in order to take advantage of the tax losses.

The six years following the Textron-American Woolen-Robbins merger were a period of great activity. In 1955, Textron acquired five companies manufacturing electronic and precision equipment, chain saws and generators, metal fasteners and parts, plywood, and plastic clothesline and polyethylene bags. In 1956, six companies were purchased in the following industries: radio and television electronic parts, aluminum doors and windows, gray iron and alloyed iron castings, bathroom accessories, a passenger steamship, and vinyl-coated fabrics. A company purchased in 1957 manufactured valves and other fluid control equipment for aircraft and missiles. The five companies acquired in 1958 produced industrial hardware, machine tools, metalworking machinery, optical spectacle frames and optical laboratory equipment, and precision components for cold rolling mills. In 1959, three manufacturing companies were acquired in the rivet, automobile parts, and steel castings industries, and two service organizations were purchased, one a company doing contract research in solid state and applied physics and the other a company engaged in the design and engineering of industrial furnaces. Four more companies were purchased in 1960; manufacturers of chain saws and generators (in Canada), men's and boys' shoes, Fiberglas boats, and helicopters and rocket engines.

About the only thing that these companies had in common was that they were all operating profitably under efficient management. In almost every case, the existing management was retained and continued to operate the business under Textron's ownership. Three of the companies purchased (the plywood manufacturer, aluminum doors and windows, and the steamship) subsequently turned out to be unprofitable and were disposed of.

The twenty-five businesses acquired during 1955-1960 were purchased in a variety of ways: sometimes cash was paid for the common stock or for the assets of the business; other transactions involved an exchange of Textron's shares for the shares or assets of the company being acquired. Several acquisitions provided for future purchase payments contingent on the future earnings of the business. During these six years, Textron paid or agreed to pay a total of nearly $130 million in cash and issued nearly 1 million shares of its common stock to the sellers of the various businesses. Additional payments subsequent to 1960 would also be required for those businesses acquired under contingent payment contracts.

The success of Textron's diversification program is readily observable from the series of annual operating statements and statistical data presented in Exhibit 1. Sales volume in 1959 was more than triple the volume in 1954, net profit increased thirteen times, and net profits per common share in 1959 were seven times the results achieved in 1954. This improvement in operating results was directly attributable to the increased breadth of Textron's product line: prior to 1954, all sales were in the textile industry, but the percent of nontextile sales in subsequent years was 33 in 1955, 64 in 1956, 73 in 1957, 75 in 1958, and 79 in 1959. In 1959, no single industry accounted for more than 21 per cent of Textron's total volume, and the company's government business (usually less profitable and subject to price renegotiation) was only 13 per cent of total sales.

In early 1961, Textron employed more than 29,000 people, most of them on the operating level. The various businesses were operated as divisions or subsidiaries and the management of each was highly decentralized, thus placing primary responsibility for sales and profits on the operating managers. Less than 100 people were employed in Textron's corporate headquarters in Providence, Rhode Island.

THE MERGER WITH AMERICAN WOOLEN AND ROBBINS MILLS

Until 1954, American Woolen Company was an integrated producer of woolen and worsted fabrics and, until 1952, had been the largest manufacturer of such fabrics in the world. During World War II, the bulk of American Woolen's production went to the United States Government. After the war, pent-up civilian demand maintained sales at high levels until 1951 and 1952 when the government again became the major customer. During these years, American Woolen did not maintain the same degree of research, styling, and plant modernization effort as did some of its competitors; in consequence, its costs of production tended to be relatively high, and the company's position in the civilian market dropped sharply. The company began incurring large operating losses in 1952, and in 1953, a stockholders' committee was formed to solicit proxies in an attempt to replace the entrenched management. Before the fight for control was actually joined, the management of Textron became interested in the situation and decided to attempt to acquire control of American Woolen. The stockholders' committee decided that the sale of the company to, or in combination with, Textron was the best course of action, and supported Textron's efforts to gain control. By a combination of open-market purchases and direct exchange-of-shares solicitation of American Woolen stockholders, Textron acquired ownership of 47 per cent of American Woolen common stock by the fall of 1954.

In August 1954, Textron purchased 42 per cent of the common stock of Robbins Mills, Inc., from J. P. Stevens & Co., at a total price of $5,072,500. Robbins was engaged principally in the manufacture and sale of a wide variety of fabrics made from synthetic yarns and natural fibers. Robbins, too, had suffered declining profits in the generally depressed textile industry and had incurred increasing operating losses since 1952.

The merger of American Woolen, Robbins, and Textron, proposed by Textron's management late in 1954, offered apparent advantages for all three companies (see Exhibit 2 for a tabulation of sales and operating results for the three companies). American Woolen owned twenty-five plants, of which only ten were operating in 1954. All the plants except three were located in New York or New England and all were old and relatively expensive to operate. American Woolen had also accumulated a substantial amount of excess working capital (the company had over $21 million invested in government securities at the end of October 1954) as the volume of its business declined. Textron, on the other hand, had an efficient management with a proven skill in the modernization and relocation of textile facilities. Textron was also short of working capital as a result of its diversification program. Robbins' contribution to the combined enterprise was several modern southern plants; its need was for working capital. Both American Woolen and Robbins also had large income tax loss carry-overs, estimated in October 1954 at approximately $18,750,000 for American Woolen and $10,000,000 for Robbins.

The terms of the proposed merger called for the preferred stock of American Woolen and Robbins to be exchanged for similar securities of Textron. Each common share of American Woolen was exchanged for two shares of Textron common, and the Robbins common was exchanged share for share with Textron. These terms were approved by the necessary two-thirds majority of each class of stock issued by the three companies, and the merger was consummated on February 24, 1955.

ACCOUNTING FOR FEDERAL INCOME TAXES

Under the provisions of the Internal Revenue Code, a company incurring a "net operating loss" (as defined by the Code) in one taxable year may carry it back two years[1] for purposes of redetermining taxable income in those prior years and may receive a refund of all or part of the income taxes paid during those years. Any loss not used up by the carry-back may then be carried forward for five years and used to reduce taxable income in those future periods.

As a result of the merger, the surviving corporation (Textron) succeeded to the net loss carry-over which could be applied against profits during the first few years following the merger. At the end of October 1954, the total operating loss carry-over of the combined companies (including a $1,300,000 carry-forward by Textron) amounted to $30,050,000, and was scheduled to expire, to the extent not utilized, as follows: $200,000 at the end of 1956, $14,250,000 at the end of 1957, and $15,600,000 at the end of 1958. The operating losses incurred by the textile operations of the combined companies continued to mount during 1955 and 1956, while Textron's management was closing down unprofitable textile mills and starting up a new, integrated woolen mill in Barnwell, South Carolina. The company's 1955 annual report stated that the operating-loss carry-over at the end of that year was "at least $42 million." The 1956 report stated that, "the total losses as a result of [closing old mills and opening the new one] since merger, charged off against other profitable business, exceeded $13 million." As of the end of 1956, the company reported its loss carry-forward as $45 million. Subsequent reports on the status of the tax loss and its expiration dates are shown in Exhibit 3.

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[1] A three-year carry-back is permitted for taxable years ending after December 31, 1957.

Although not obvious from Exhibit 3, it is nevertheless a fact that during the years following the merger, Textron did not permit any of its tax loss to expire unutilized. Stated briefly, Textron was able to accomplish this feat, even though reported pretax profits were insufficient to absorb the scheduled expirations, because certain subsidiary companies (which filed separate tax returns) incurred substantial operating losses which became available as carry-forwards for future years. The company's annual report to stockholders reported consolidated earnings for both profitable and unprofitable companies as a net amount.

An important element in managing Textron's tax-loss carry-over was the recognition of losses incurred in the disposal of old textile plants and other properties. As may be noted in Exhibit 4, approximately $31 million of such losses were incurred in the six years from 1954 to 1959 (total charges against the reserve of $32,091,998 less the $1,090,000 charge which was restored to paid-in surplus). Of this $31 million loss, only $3 million was charged against Textron's income during the six-year period; $7 million was charged against income by American Woolen prior to the merger, and $21 million was set up in the reserve account at the date of merger by reducing the paid-in surplus account of the combined enterprise. For purposes of income reported to shareholders, therefore, these losses had a negligible impact. For income tax purposes, however, the capital losses could only be recognized when the losses were actually incurred by the disposal of the properties. Thus, Textron incurred new, large tax loss carry-forwards in the years following the merger, even though these losses had already been provided for in the company's regular statements.

As a result of Textron's complex income tax problems, there were frequently wide variations between the company's reported profits and its taxable income for a given year. Exhibit 5 presents a simplified and summarized reconciliation between these two amounts for 1958. An important thing to realize about Exhibit 5 is that, although Textron's combined net taxable income for 1958 was $12,218,000, this amount is the sum of several different tax returns for the parent and subsidiary corporations, some of which reported large taxable income and others of which reported operating or capital losses. Several of the adjustments noted on Exhibit 5 are peculiar to Textron's situation, but many others (notably items 3c, 3d, 4, 5, 6, 9, and 10) would require similar adjustments by any tax-paying corporation who had transactions of this type.

THE EFFECT OF REPORTED PROFITS ON STOCK PRICES

Early in 1961, Textron's common stock was selling for approximately $22.50 per share and had ranged in price during 1960 from $18.75 to

$24.75 per share. In the opinion of Textron's management, the stock was underpriced relative to other securities of similar investment quality. At $22.50, Textron was priced at only 6.2 times the 1959 earnings per share, whereas the typical range for most large well-established companies was 10 to 15 times the current after-tax earnings per share. One of the possible explanations for this apparent undervaluation of Textron stock was that investors were trying to anticipate the effect on Textron's earnings of the exhaustion of the company's tax-loss carry-forwards. If 1959's earnings were reduced by 52 per cent to allow for normal income taxes, the current stock price would be about 12.5 times the after-tax earnings. Textron had announced that during 1960 the company would accrue income taxes at a 26 per cent rate "to provide an adequate tax reserve against [1960's] operations in the event our existing tax-loss carry-over credit is used up during the year."

Required

1. What problems do you see in determining a set of accounting policies for a highly diversified business enterprise like Textron? Is it desirable to establish an accounting policy for, say, inventory valuation that would be consistently used by all divisions? Is it feasible to establish rigid accounting policies for such a complex of businesses? If accounting policies are established at the divisional level, what are the implications of preparing consolidated corporate statements encompassing all the divisions?
2. Many large corporations today report on the liability side of the balance sheet an amount labeled, "Deferred Federal Income Taxes." This amount represents the estimated tax liability on the difference between reported income and taxable income, and it occurs in those situations in which the taxpayer reports a lower taxable income (if permitted by law) than he reports in published financial statements. How would such a concept operate in Textron's situation? Should Textron report an amount on the asset side of its balance sheet called, "Unused Credits Against Future Federal Income Taxes"? How could the amount of this asset have been determined on February 24, 1955? How would the use of this concept affect the reported earnings and market price of Textron's stock?

EXHIBIT 1

Selected Financial Data, 1954-1959
(In thousands)

Condensed Income Statements	1954	1955	1956	1957	1958	1959
Net sales	$99,717	$189,214	$245,794	$254,575	$244,227	$308,202
Cost of sales	92,377	164,907	204,262	210,590	197,290	246,990
Gross profit on sales	$ 7,340	$ 24,307	$ 41,532	$ 43,985	$ 46,937	$ 61,212
Selling and administrative expenses	$ 3,770	$ 12,533	$ 29,526	$ 29,839	$ 30,619	$ 36,991
Operating profit	$ 3,570	$ 11,774	$ 12,006	$ 14,147	$ 16,318	$ 24,221
Interest expense	1,773	2,842	4,456	4,320	3,990	4,530
Other income and expense (net)	455	3,735	1,047	1,131	1,572	2,393
Net income before taxes	$ 1,342	$ 5,197	$ 6,503	$ 8,696	$ 10,756	$ 17,298
Federal income taxes	-	(300)	-	-	-	655
Net income after taxes	$ 1,342	$ 5,497	$ 6,503	$ 8,696	$ 10,756	$ 16,643
Provision for preferred dividends	$ 703	$ 1,192	$ 919	$ 826	$ 764	$ 544
Average common shares outstanding	1,239	2,550	3,236	3,504	3,985	4,454
Earnings per share	$ .52	$ 1.69	$ 1.73	$ 2.25	$ 2.51	$ 3.61
Condensed Balance Sheets						
Assets						
Current assets	$42,362	$ 81,649	$102,655	$ 87,226	$ 93,960	$120,248
Properties (net of reserves)	25,979	63,893	82,311	80,047	78,265	70,869
Other tangible assets	3,171	4,680	5,144	8,337	7,184	12,428
Intangible assets	1,350	654	1,914	2,672	8,229	15,168
Total assets	$72,862	$150,876	$192,024	$178,282	$187,638	$218,713
Liabilities and capital						
Current liabilities	$22,306	$ 37,998	$ 52,878	$ 40,058	$ 33,261	$ 34,353
Long-term debt	3,956	32,537	60,608	56,517	58,910	66,526
Other liabilities	2,760	525	675	1,287	737	1,032
Total liabilities	$29,022	$ 71,060	$114,161	$ 97,862	$ 92,908	$101,911
Preferred stock	19,020	25,994	19,366	17,593	15,538	9,216
Common stock and surpluses	24,820	53,822	58,497	62,827	79,192	107,586
Total liabilities and capital	$72,862	$150,876	$192,024	$178,282	$187,638	$218,713

EXHIBIT 2

Selected Financial Information about American Woolen Company, Robbins Mills, Inc., and Textron Inc., Years 1947-1954
(All amounts in thousands)

Net Sales

Year	American Woolen	Robbins	Textron	Combined
1947	$175,993	$34,801	$124,776	$335,570
1948	197,849	44,063	98,847	340,759
1949	132,130	35,198	67,896	235,224
1950	150,124	43,166	87,547	280,837
1951	253,334	37,428	98,290	389,052
1952	111,866	57,986	98,745	268,597
1953	73,494	60,690	70,017	205,201
1954*	24,498	43,283	82,049	149,830

Net Profit or (Loss)

Year	American Woolen	Robbins	Textron	Combined
1947	$ 16,071	$ 7,134	$ 8,317	$ 31,522
1948	16,495	8,757	6,934	32,186
1949	1,030	3,733	(1,663)	3,100
1950	5,241	5,862	2,900	14,003
1951	10,240	1,677	4,417	16,334
1952	(6,247)	(774)	(3,543)	(10,564)
1953	(9,838)	(2,996)	(195)	(13,029)
1954*	(16,633)†	(6,706)	408	(22,931)†

*Partial year data: 10 months for American Woolen and Textron, 47 weeks for Robbins.

†After provision of a reserve of $7 million for loss on disposal of closed plant properties.

Source: Proxy statement for the special meeting of Textron stockholders on February 7, 1955.

EXHIBIT 3

Summary of Reported Profits and Tax Losses Carried Forward

Year	Profits Before Tax	Federal Income Tax	Tax Loss Carried Forward at End of Year	Expiration Date of Tax Losses					
				1957	1958	1959	1960	1961	Later Yrs.
1955	$ 5,197	$(300)	$42,000	N.A.					
1956	6,503	-	45,000	$14,000	$20,500	$10,500*			
1957	8,696	-	31,600		20,000	3,100	$8,500*		
1958	10,756	-	19,400			4,400	5,700	$9,300*	
1959	17,298	655	19,000				5,200	500	$13,300*

*Expiring in the year indicated or in subsequent years (detailed expiration dates not available).

Source: Annual reports for Textron Inc.

EXHIBIT 4

Analysis of "Provision for Loss on Disposal of Properties", Years 1954-1959

	Credits Made During Year		Debits Made During Year		Balance at End of Year
Year	Explanation	Amount	Explanation	Amount	
1954	Reserve established by American Woolen—charged against income	$ 7,000,000	Loss on disposals in 1954 by American Woolen	$ 87,342	$ 6,912,658
1955	Increase in the reserve recognized at date of merger, February 24, 1955, and charged to paid-in surplus	8,998,832			15,911,490
1955	Estimated loss charged to income	4,000,335	Losses recognized during the year	11,229,781	8,682,044
1956	Increase in reserve, as of February 24, 1955, by a charge to paid-in surplus	12,000,000	Disposition losses, idle plant expenses, and other carrying charges	7,701,405	12,980,639
1957	Provided for estimated loss on disposal of Ryan Industries, charged to income	181,233	Disposition losses, idle plant expenses, and other carrying charges	2,037,405	11,124,467
1958	Estimated loss on S.S. Leilani.	2,283,723	Disposition losses during 1958	569,478	
	Other estimated losses charged to income	199,829	Excess provided for American Woolen losses—restored to paid-in surplus	1,090,000	11,948,541
1959	No credits during 1959		Loss on disposals, primarily two plants and the S.S. Leilani	9,376,587	2,571,954
	Totals	$34,663,952		$32,091,998	

Source: Annual reports for Textron Inc.

EXHIBIT 5

Textron Inc., and Subsidiary Companies Reconciliation of Reported Book Profits and Taxable Profits for the Year 1958

Net profit reported in annual report.			$10,756,000
Increases or (decreases) arising from income tax adjustments:			
1. Provision for loss on disposal of steamship			2,284,000
2. Reserve for valuation of notes receivable			1,464,000
3. Adjustments in reserve accounts:			
	Charges to 1958 income	Tax deduction allowable in 1958	
(a) Run-out expenses	$ 121,000	$222,000	(101,000)
(b) Losses on discontinued operations	1,037,000	112,000	925,000
(c) Liability for self-insurance claims	249,000	184,000	65,000
(d) Reserve for repairs	137,000	88,000	49,000
(e) Reserve for damage claims	168,000	99,000	69,000
4. Research and development costs deferred			1,334,000
5. Amortization of research costs deferred in prior years			(453,000)
6. Contributions to the profit-sharing fund (tax deductible when paid):			
Charged to income in 1958, paid in subsequent year			595,000
Paid in 1958 but charged against income in 1957			(702,000)
7. Charitable contributions not allowable because of net loss on tax returns			103,000
8. Income received on a damage claim recognized for tax purposes in 1957 but not booked until 1958			(629,000)
9. Excess of tax deductible depreciation over book depreciation			(58,000)
10. Amortization of the excess cost of companies acquired			278,000
11. Adjustment of accrued taxes to payment or assessment basis			(487,000)
12. Loss on redemption of stock			(1,041,000)
13. Adjustment on account of difference between book basis and tax basis of assets received in liquidation			(1,175,000)
14. Other adjustments (53 separate items) increasing or decreasing taxable income			(1,058,000)
Net taxable income for 1958			$12,218,000

Source: Company records.

CASE 35

Textron Inc. (B)

Acquisition of a Subsidiary

Textron began its diversification program in 1953, as described in Case 34, and the pressure to purchase profitable subsidiaries was intensified by the large tax-loss carry-forwards acquired by the company's merger in early 1955 with American Woolen Company and Robbins Mills, Inc. One of the first companies purchased by Textron following the merger was Supreme Cameras, Inc.,[1] a well-known manufacturer of high-quality cameras and other photographic equipment.

HISTORY OF SUPREME CAMERAS, INC.

Supreme Cameras had been founded in 1924 by two brothers, Irving and William Shaw, to manufacture high-quality still cameras for press and portrait photographers. The market for professional cameras was a limited one, and the company grew slowly until 1940. Government contracts during World War II caused a large increase in Supreme's sales volume, and after the war the owners decided to expand their business by entering the amateur photography field. Supreme's reputation for professional quality cameras was a major asset in entering the consumer market, and the years following 1950 saw a rapid increase in sales.

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[1] The name, industry, and certain other historical information concerning the subsidiary have been changed to avoid disclosure of confidential information.

Volume, which prior to 1940 had never exceeded $500,000, rose to over $6 million in 1950 when Supreme introduced its first 8 millimeter home movie camera. Sales in 1951 exceeded $12 million and rose to $15.6 million in 1952 and to $17.7 million in 1953. An income statement for 1954, indicating a sales volume of $19.7, is shown in Exhibit 1.

The spectacular success of Supreme Cameras, Inc., was not an unmixed blessing for the Shaw brothers, who still owned approximately one-third of the common stock in 1955. These men, then in their late fifties, were concerned about the estate tax problems their beneficiaries would face in valuing their stock in the event of their death and in raising the money to pay the tax levied on their estates. The owners were also burdened with very heavy current income taxes. Profits during 1952-1954 had risen at a rate which outstripped the company's ability to absorb the funds thus generated and, as a result, large dividends had been paid during those years. In addition, each of the brothers drew a substantial salary as an executive of the company. In 1954, the owners' legal counsel advised them to consider selling the business in order to diversify their own investment and to permit the realization of a substantial profit that would be taxed as a capital gain rather than as ordinary income.

NEGOTIATING A PURCHASE PRICE

Informed by an investment banker of Supreme's willingness to sell, Textron's management decided to buy the company if a mutually satisfactory purchase price could be agreed upon. The book value of Supreme's stock was obviously far less than its market value; as of April 30, 1955, when the sale was finally consummated, the book value was only $2,349,000, scarcely one and one-half times the after-tax earnings of the company (see Exhibit 2). The Shaw brothers also pointed out that the book value of the stock was drastically understated because of certain accounting policies used by Supreme. For example, inventories were valued under a LIFO system; if valued at the lower of cost or market on a FIFO basis, the inventories on April 30, 1955, were worth approximately $6,142,000. Furthermore, a great deal of the company's plant and equipment had been acquired in recent years under emergency certificates issued by the government; these certificates permitted the company to amortize a substantial portion of the cost of the facilities over five years.

After a considerable period of negotiation, Textron agreed to purchase all Supreme's common stock for $5 million cash (paid on April 30, 1955) plus a series of contingent payments to be made over the succeeding ten years. These payments, which were construed as part of the purchase price of the company, were to be equal to 25 per cent of the pretax earnings (as defined in the agreement) of the company in each of the next ten years, but not to exceed 100 per cent of the after-tax earnings. These unusual purchase terms offered important advantages to both buyer and seller. Both parties agreed that the purchase price should reflect the expected future earnings of Supreme, but it was very difficult to agree on what the magnitude of those earnings would be. Using the contingent payment device, Supreme's owners would expect to receive substantial future payments (taxable as a capital gain), and Textron would be permitted to pay a major portion of the purchase price directly from the earnings of the newly acquired subsidiary.

THE NEED FOR A NEW ACCOUNTING POLICY

Textron's acquisition of Supreme Cameras, Inc., was different from any previous transaction the company had experienced, although Textron's management anticipated that the contingent payment method might be used in subsequent acquisitions. Textron's controller, therefore, had to develop a new accounting policy for recording such acquisitions on a consistent basis.

For income tax purposes, the Supreme acquisition was relatively straightforward. The Internal Revenue Code did not permit the amortization of goodwill to be deducted as an expense in the determination of taxable income. Therefore, it was desirable for the taxpayer to attribute as much of the purchase price as possible to tangible assets which could ultimately be charged off as tax-deductible expenses. For income tax purposes, Textron decided to record Supreme's inventory at the lower of FIFO cost or market (rather than at LIFO cost) and to record the fixed assets at their appraised fair market value as of April 30, 1955, the date of purchase. The fixed asset appraisal, done by the American Appraisal Company, indicated that the fair market value of the fixed assets was $3,722,000.

As noted in Case 34, Textron had many differences between its published financial statements and its income tax returns. Therefore, the tax treatment of the Supreme acquisition was in no way binding upon the treatment to be used for published financial reports.

Required

1. How should the acquisition of Supreme Cameras, Inc., be handled in Textron's corporate accounts? Should inventories be recorded at LIFO or at current cost? Should the fixed assets be recorded at book or appraisal values? What entry would you make to record the $5 million disbursement on April 30, 1955?
2. How does the existence of the contingent future payments affect the treatment of this acquisition? What entry would you make in future years assum-

ing that the Supreme Camera Division had pretax earnings of, say, $3,200,000 and that Textron paid $800,000 each year to Supreme's founders?

3. Draft a statement of the accounting policy which you believe Textron should follow in recording the acquisition of subsidiaries under contingent payment purchase agreements.

EXHIBIT 1

Supreme Cameras, Inc.
Statement of Profit and Loss for the Year Ended December 31, 1954
(In thousands)

Net sales	$19,732
Cost of goods sold	13,341
Gross profit	$ 6,391
Operating expenses	3,013
Operating profit	$ 3,378
Interest and other deductions (net)	264
Net income before taxes	$ 3,114
Estimated Federal income tax	1,600
Net income after taxes	$ 1,514

EXHIBIT 2

Supreme Cameras, Inc.
Balance Sheet on April 30, 1955
(In thousands)

Assets

Current assets		
Cash	$1,759	
Receivables (net of reserve)	2,729	
Prepaid expenses	49	
Inventories (LIFO)	3,765	
Total current assets		$8,302
Fixed assets		
Land		$ 50
Buildings and machinery	$2,481	
Less depreciation	1,863	618
Leasehold improvements	$ 98	
Less amortization	7	91
Total fixed assets		$ 759
Other assets		$ 35
Total assets		$9,096

Liabilities and Capital

Current liabilities		
Accounts payable	$ 655	
Current portion of long-term debt	305	
Accrued expenses	1,174	
Provision for Federal income taxes	1,750	
Total current liabilities		$3,884
Long-term debt		
Notes payable after one year		2,863
Total liabilities		$6,747
Capital stock and surplus		
Common stock—$10 par	$ 300	
Earned surplus	2,049	
Total equity		2,349
Total liabilities and equity		$9,096

CASE 36

The Reece Corporation

During 1953, the American Accounting Association, under a grant from the Merrill Foundation for the Advancement of Financial Knowledge, undertook a research project on the effects of inflation on capitalistic enterprise. As a part of its research project, the Association planned a series of four case studies of American corporations.

One of the companies offering to cooperate in the study was The Reece Corporation of Waltham, Massachusetts. Mr. Franklin Reece, the president, had long been concerned with the possible misunderstanding and danger arising during a period of inflation in which no planned account is given in published statements of the changes taking place in the purchasing power of the dollar.

In the case study, The Reece Corporation was discussed as follows:

> The Reece Button Hole Machine Company was founded and incorporated in 1881 under the laws of the state of Maine for the purpose of producing and marketing John Reece's invention, the first machine automatically to stitch eyelet-end buttonholes in the high button shoes of that day. In the following year, a second Maine corporation, The International Button Hole Sewing Machine Company, was separately capitalized and became the exclusive marketing agent for Reece products in foreign countries.
>
> From its inception, the Company has specialized in automatic sewing

> machines for such short cycle stitching operations as button sewing, tacking, short-seam overedging, and eyelet stitching in addition to the many varied kinds of buttonhole sewing required by the shoe and garment industries. The Company, it is believed, was among the first to lease exclusively rather than sell its products. This policy was followed until 1930 when an irrevocable ninety-day option to purchase or lease was granted to customers upon the installation of new equipment.
>
> In 1948, the two original companies merged to form a new Massachusetts corporation, The Reece Corporation. In 1949, its manufacturing departments were moved from Boston to Waltham, and in 1954 the administrative, sales, and engineering departments also were moved there. The Company maintains branch offices for sales and service in twenty major garment producing centers in the United States. Five subsidiary companies and twenty-eight agents in thirty-three foreign countries sell, lease, and service its products abroad.[1]

As a result of the study conducted by the American Accounting Association with The Reece Corporation, The Reece Corporation began including information in its annual report on the price level problem. In its seventy-fourth annual report for the year ended December 31, 1955, The Reece Corporation included the data shown in Exhibit 1.

Required

1. Do you think this step by The Reece Corporation is a desirable one for it to take? Should other corporations do the same?
2. What other steps, if any, should corporations take to bring the price level problem to the attention of their stockholders and the public?
3. Do you anticipate Mr. Brooks, the treasurer, will get much response from his request? What type of response do you think it will be?

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[1] Ralph C. Jones, *Case Studies of Four Companies* (Columbus, Ohio: American Accounting Association, 1955), p. 110.

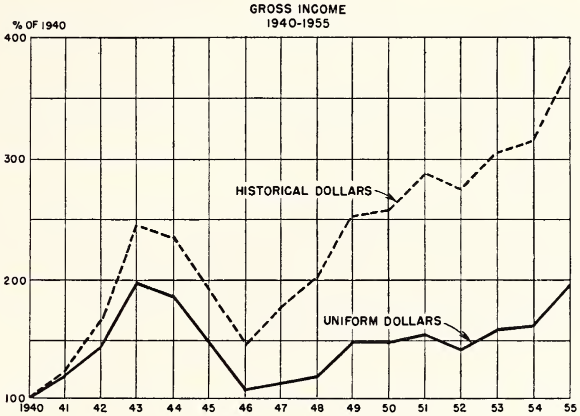
EXHIBIT 1

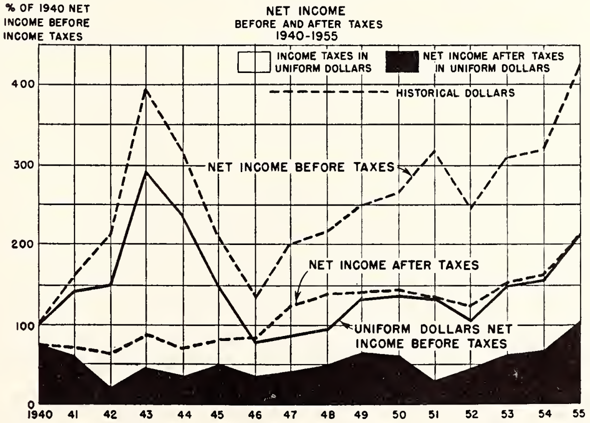
Excerpt from the Annual Report for Year Ended December 31, 1955

The purpose of the Price Level Study is to compare the Company's financial statements as prepared by conventional accounting with these same statements after adjustment to show the effect of inflation.

In applying the Price Level Study to the Company's figures, we compare Historical Dollars—those with which we are all sadly familiar and which have lost more than half their purchasing power in the last fifteen years—with Uniform Dollars. The Uniform Dollar used is defined as a uniform measuring unit whose purchasing power is equal to the 1955 dollar. In order to prepare the accompanying charts, the Company's financial statements from 1940 to date have been restated in 1955 Uniform Dollars by means of index numbers based on the Consumers Price Index. For chart purposes, both Historical Dollar and Uniform Dollar amounts have been expressed as a percentage of 1940 in order to establish a common point of departure.

From the first chart, it is apparent that, in Historical Dollars, Gross Income was almost four times as large in 1955 as it was in 1940, whereas in Uniform Dollars it is only about twice as large. 1955 net income after taxes in Historical Dollars is 2.9 times as great as that for 1940, yet in Uniform Dollars it is only 1.4 times as large.





cont'd

EXHIBIT 1, cont'd

Fortunately, the Price Level, or cost of living, has increased only slightly in the last four years; therefore conventional accounting methods, which entail the use of Historical Dollars, do not seriously distort the income statement for 1955. Nevertheless, in converting 1955 figures to Uniform Dollars, we find that depreciation, charged without regard for actual replacement cost, is understated by $49,000 and taxable income overstated by $44,000, the difference representing an adjustment to cost of sales. It follows that the Federal Income Tax applicable to these fictitious earnings is a tax on capital.

Studying a Company's financial statements when expressed in Uniform Dollars has a sobering effect in these days of high production, apparently high profits, and general prosperity. The true growth of a company becomes apparent, the false basis of taxable income is highlighted and, in the case of this Company, one finds that earnings plowed back in the business are only about fifty-eight per cent as large as indicated by conventional accounting practice.

The rising cost of machinery and buildings over the last fifteen years is one of the most serious problems that face manufacturing companies. These costs have gone up significantly faster than is indicated by the Consumers Price Index which has been used in preparing this Price Level Study. Unfortunately, we do not know of a Price Index that could properly be applied to a manufacturing concern so we have used the Consumers Price Index, but we recognize that it falls short of indicating the full effect of inflation on this Company. The Price Level Study indicates that the Company's reserves for depreciation are 25% or $703,000 less than they should be. No doubt the true inadequacy of the reserves is nearer 40%, or more than $1,000,000. As equipment wears out or becomes obsolete, it must be replaced. Since depreciation reserves are inadequate to provide for replacement, retained earnings or borrowed money must be used to help pay for the replacement equipment.

We believe that the comparison of financial results in Historical Dollars with those converted to Uniform Dollars is an invaluable management tool. However, the theory and application of the Price Level Study is difficult to understand even after considerable study. Therefore, we wonder if it is of interest to readers of this report. Would you please note on your proxy whether or not you think we should include this section in future reports.

W. D. Brooks, Jr., Treasurer

CASE 37

Textron Inc. (C)

Research and Development Costs

Textron had succeeded to large operating loss carry-forwards as a result of its merger in 1955 with American Woolen Company and Robbins Mills, Inc., as described in Case 34. As of the end of 1956, Textron's annual report stated that the total loss carry-over then amounted to $45 million, of which $14 million was scheduled to expire at the end of 1957 if not utilized. Thus, contrary to the problem faced by most corporate tax departments, Textron's tax department was trying to find allowable tax treatments which would *increase* the company's current taxable income, thereby using up the expiring portion of the tax-loss carry-forwards. The tax department realized that there was a value in preventing the expiration of some unused tax loss only if the taxable income generated in 1957 resulted in the creation of tax-deductible items in subsequent years.

Textron's diversification program, begun in 1953 and accelerated in 1955, was proceeding satisfactorily in 1957. Consolidated net income for 1956 amounted to $6,503,000 in total, but the chairman's annual letter to stockholders pointed out that this was the net result of profits of $12,315,000 in the nontextile divisions, offset by losses (partially non-recurring) of $5,812,000 on textile operations. An increase in profits was expected in 1957, but there was some doubt that taxable profits would be sufficient to absorb the loss carry-forward expiring in that year.

After consultation with its legal counsel, Textron's management decided that the company should elect to change its method of deducting research and development costs for tax purposes. The Internal Revenue Code permitted a taxpayer to treat research or experimental expenditures as currently deductible expenses, and this treatment was the one most commonly used by most businesses. The Code also permitted a taxpayer to elect to treat such expenditures as deferred expenses, amortizable ratably over a period of not less than sixty months, beginning with the month in which the taxpayer first began to realize benefits from the expenses. Textron's decision was to use this latter treatment for identifiable research projects in certain operating divisions. Information regarding these expenses during 1956 and 1957 was collected from the division managers, and the revised tax treatment was elected as of January 1, 1956, by filing an amended tax return for 1956.

In its 1957 income tax return, Textron reported that $1,491,000 of research expenditures for the year had been deferred. The company deducted $136,000 of amortization in 1957 for projects deferred in 1956 and 1957 which had begun to produce benefits during 1957. In addition, $34,000 was deducted in 1957 as expenditures previously deferred on projects that had since been abandoned as fruitless. In 1958, Textron's tax return indicated deferrals of $1,334,000 and deductions for amortization and abandonments of $453,000.

One of the divisions participating in this tax deferral of research expenditures was the Supreme Cameras Division,[1] acquired by Textron in 1955 as described in Case 35. In order to broaden its product line and thus permit a continuing expansion of sales volume and profits, Supreme had greatly increased its expenditures for research and development since its acquisition by Textron. In the report requested by Textron's tax department for 1957, Supreme's management had listed nearly fifty specific research or development projects that had occasioned some expenditure during the year. The total amount spent on these projects in 1957 amounted to $435,000. A list of some of the more important projects and the amounts spent on them in 1957 and 1958 is presented in Exhibit 1.

Supreme's research expenditures in 1958 nearly doubled the 1957 outlay, due primarily to heavy costs in the development of a radically new 8-millimeter sound movie camera and projector. Supreme hoped to be the first producer in the industry to offer this type of equipment at a price low enough to attract the amateur market. The product was scheduled for introduction early in 1961 and, on the recommendation of Supreme's management, Textron's board of directors had approved the expenditure of up to $1 million during 1958-1960 for the necessary research and development.

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[1] Disguised name.

At the time that Textron elected to defer research expenditures on certain projects for tax purposes, management also considered adopting a similar treatment of those expenses in its corporate financial reports. The deferral of these expenses was permissible under "generally accepted accounting principles," but the auditor's opinion on the financial statements in the year of the change in procedure would have contained an "exception," because the statements would not have been prepared "on a basis consistent with that of the preceding year."

Textron decided not to adopt the deferral treatment in its regular books because, as the controller pointed out, "Deferring research expenditures is not regarded as conservative accounting practice. There are several obvious disadvantages in the treatment: the balance sheet reflects an intangible asset of dubious value, the amortization period must necessarily be arbitrary, and there is no guarantee that the business will, in fact, receive any future benefits from past research expenditures. Even more important, however, is the effect that such a change might have on the attitude of readers of our financial reports. We follow relatively conservative accounting practices, and we think our stockholders have a great deal of confidence in the profit figures and other data we publish periodically. A single, relatively minor change such as deferring part of our research expenses might do far more damage to investor confidence in our statements than would be justified by the theoretical improvement in the accuracy or validity of our reported profits."

Required

1. Do you think that all or any part of the research expenditures for the Supreme Cameras Division should have been deferred in Textron's regular accounts in 1957? What is the advantage *to shareholders* of the conservatism advocated by Textron's controller in the preparation of published statements? Is the doctrine of conservatism compatible with the accounting principle of matching costs and revenues in the determination of net income? How does the doctrine of *consistency* in the application of an ac-acounting policy affect the determination of income in this case?
2. Because Textron decided not to defer research expenditures for book purposes but did defer them for tax purposes, there would be a difference between profits reported on the income statement and taxable profits in 1957 and later years. Compare this situation to the more common one for many companies in which tax deductions may precede book deductions and thus lead to the creation of a "Deferred Federal Income Taxes" liability on the balance sheet. Should Textron establish an asset account entitled "Prepaid Federal Income Taxes"? How would this asset differ, if at all, from the asset account discussed in Case 34 entitled "Unused Credits Against Future Federal Income Taxes"? Work out a simple example illustrating the use of one or both of these accounts, as you think appropriate.

EXHIBIT 1

Research Expenses Deferred by Supreme Cameras Division

Project No.	Brief Description	Date Started	Amounts Spent and Deferred 1957	1958	Date Product Introduced
743	Featherweight 35 mm. camera	July 1956	$ 63,023	$ 14,894	October 1958
682	Improved zoom lens	April 1956	59,761	29,143	August 1958
801	Photoelectric cell for 35 mm.	January 1957	42,754	72,108	April 1959
803	Photoelectric cell—8 mm. movie	January 1957	26,411	39,182	October 1959
841	Economy model 35 mm. camera	July 1957	16,794	32,107	February 1959
854	8 mm. sound movie camera	September 1957	28,161	372,411	
855	8 mm. sound projector	September 1957	16,804	128,555	
	Various other projects		181,479	159,222	
	Total		$435,187	$847,622	

CASE **38**

Textron Inc. (D)

Determination and Amortization of Bond Discount

On May 12, 1959, Textron Inc., issued $30 million of 5 per cent subordinated debentures, due May 1, 1984. Attached to each debenture were "warrants" entitling the purchaser to buy Textron common stock at stated prices during the next twenty-five years. The purpose of the issue was to provide funds for retiring one of the company's outstanding issues of preferred stock, for reducing short-term indebtedness, and for other general corporate purposes, including the continuance of the company's diversification program. The bonds were priced to the public at par, but underwriter's discounts and commissions amounted to 4 per cent and reduced Textron's share of the proceeds to $28,800,000. In addition, Textron incurred certain financing expenses totaling $82,754.09 and paid federal stamp taxes on the debentures amounting to $33,000. Textron's net cash proceeds on the issue were therefore $28,684,245.91.

Each debenture as initially issued had two warrants attached, entitling the debenture holder to purchase for cash a total of twenty shares of Textron common stock for each $1,000 principal amount of the debentures. The purchase price for the common stock upon exercise of the warrants was $25 per share during the period ending May 1, 1964; $30 per share for the period ending May 1, 1969; $35 per share for the period ending May 1, 1974; $40 per share for the period ending May 1, 1979; and $45 per share for the period ending May 1, 1984, when the warrants would expire. The closing price of Textron common stock on May 1, 1959, on the New York Stock Exchange, was 24⅛ ($24.125). One warrant on each debenture, for one-half of the shares, was detachable immediately and could be exercised at any time after June 1, 1959. The other warrant, for the remaining ten shares, was detachable and exercisable after May 1, 1960.

Under the terms of the debentures, a sinking fund was established to provide for the retirement of the debentures. Textron agreed to pay into the fund the net proceeds that it might receive upon the sale of common stock through exercise of the warrants, less the cost to Textron of debentures acquired by it and retired. In addition, Textron agreed to pay into the fund $400,000 annually, in quarterly installments beginning August 15, 1964. Monies thus paid into the sinking fund would be used by the trustee to purchase and retire outstanding debentures, such purchases to be made at the lowest prices offered by debenture holders, but not to exceed the principal amount plus accrued interest. Textron had the option of redeeming the debenture issue, in whole or in part, upon thirty days' notice, at a redemption price equal to their principal amount plus accrued interest thereon up to the date of redemption.

The debenture issue was well received in the bond market and, as is customarily the practice on issues involving a package of more than one type of security, some of the first purchasers of the combined debenture-warrant package immediately began offering to sell their warrants separately from their debentures. Market prices were thus established for three separate securities: the debentures without any warrants attached, priced at $730 per $1,000 debenture on May 12, 1959; the warrants exercisable after June 1, 1959, priced at $133.75 per 10-share warrant on May 12, 1959; and the warrants exercisable beginning on May 1, 1960, priced at $127.50 per ten-share warrant.

Required

1. Why did the warrants to buy Textron common stock at prices higher than the then current market price have any value of their own on May 12, 1959? Does the fact that the warrants apparently had a value mean that the debentures, therefore, were sold at a discount? If so, what was the amount of the discount?
2. Over how long a period should the bond discount (if any) be amortized? What entry would you make concerning unamortized bond discount assuming that on May 1, 1961, Textron's sinking fund purchased debentures with a face value of $125,000 for $99,800 and retired them?
3. Assume that on May 1, 1962, Textron's common stock was selling for $32 per share and warrants for 6,000 shares were exercised yielding proceeds to Textron of $150,000. Textron would have to use these proceeds to retire debentures which could be purchased on the market, at, say, $775 per $1,000

per debenture. What entry would you make to record this entire transaction (sale of stock, retirement of debentures, and write-off of unamortized discount)? Should the discount at which the common stock is sold at this date ($7 per share) be considered in recording this transaction?

CASE 39

Trans World Airlines

In February 1959, Mr. John Smith,[1] controller of Trans World Airlines, was reviewing the company's policy concerning the amortization of acquisition and integration expenses incurred in the introduction of new aircraft into revenue service. TWA had placed its first jet, a Boeing 707, in service the previous month, and was expecting further rapid additions to its jet fleet. By the end of 1960, it was planned that the airline's jet acquisition program would be completed and that at least forty-five jets would be flying the TWA emblem. More might be added if the demand for TWA jet service proved adequate.

The jet acquisition program for TWA had been initiated in 1955. Its first orders were placed early in the following year. In the intervening period until 1959, a considerable amount of corporate time and energy had been expended in preparing for the introduction of the jet planes. The planning and technical staffs had been involved in the program right from the start, in consultations with the manufacturers and in the many other preparations that were necessary within TWA. Now that the jets were coming into service, there would have to be intensive advertising, a considerable amount of training, and numerous other expensive activities, all connected with the integration of the jet planes. The nature and details of these expenses will be discussed in more detail below. Briefly, however, TWA expected to have spent nearly $17 million on acquisition and integration before the jet fleet was completely integrated.

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[1] Names of all persons in this case are fictitious.

COMPANY BACKGROUND

TWA was a long-established and progressive airline, with an excellent reputation. It ranked as one of the major domestic carriers, with routes on the Eastern seaboard, in the Midwest and on the West Coast. It also served several important transcontinental routes, including Miami–San Francisco and New York–Los Angeles. In addition, TWA ranked second only to Pan American Airways as a United States flag carrier in international operations. It provided extensive overseas service to Western Europe, the Middle East, and Southeast Asia. (Balance sheets for 1957 and 1958 are shown in Exhibit 1; financial and other operating results for the period of 1950 through 1958 are summarized in Exhibit 2, together with an estimate of 1959 results.)

In 1955 TWA (and all other major airlines) had begun planning the acquisition of jet aircraft. Its final decision was to order a total of thirty-three Boeing 707's and thirty Convair 880's. Delivery of the planes was expected mainly in 1959 and 1960.

The total commitment involved in these orders was upward of $300 million, including necessary spare parts. In the interim, however, further expenditures in the amount of $90 million were made in the acquisition in 1957 of Lockheed Super Constellations and other aircraft, to fill out the TWA fleet until time of delivery of the jets. TWA financed a major part of the acquisition of the Lockheed aircraft through bank loans and a stock issue in 1957.

As matters stood early in 1959, TWA's first jets were being delivered by Boeing to TWA's holding company, the Hughes Tool Company, which in turn leased the planes to TWA on a short-term basis. This arrangement was quite separate from the decision that the company would be making on the question of the long-term financing that would be needed in due course to cover the full fleets. It was apparent from the company's 1958 annual report that arrangements had not yet been completed in this regard.

Among the many proposals that were being discussed at this time was a generally accepted proposition that, sooner or later, TWA would acquire the jet planes in its own right. This in turn would mean large-scale expansion of TWA's capital structure. It was fairly obvious that major outside financing was going to have to be arranged as part of this plan. TWA's financial men were conscious of the fact that the airline's ability to accomplish this might well be impaired by its recent profit history (refer to Exhibit 2). It was true that a strong improvement was expected in 1959, but investors on the scale that TWA required were expected to be hesitant to commit a large amount in a company whose prospects might seem uncertain in the light of the immediately previous years' experience. It was therefore extremely important that any improvement in the profit situation manifested in 1959 be not only substantial and impressive, but also strong enough to carry through to subsequent years.

It was against the background of these circumstances that Mr. Smith was conducting his policy review.

PREVIOUS POLICY

Mr. Smith recalled that previous to 1956 it had not been felt necessary to have any specific policy on the amortization of this type of deferrable expense. Expenses of this nature had run at such a low level that they had simply been treated as part of the cost of doing business in the year in which they had been incurred.

In 1956, however, a significant change had taken place. TWA had started a fairly considerable program of acquisition and integration expense in connection with its new Lockheed planes. Approximately $4 million was to be spent under these headings. Under the circumstances, it was felt that deferral was required under a Civil Aeronautics Board regulation.[2] It was decided to amortize these expenses on a straight-line basis over a five-year period, beginning at the estimated mid-point of the period during which the new planes were being integrated into revenue service.

It was important to note, however, that such expenses were still claimed and allowed as current expenses for income tax purposes, despite the fact that they were not included as expenses in the published income statement. This meant that the income taxes apparently payable on reported profits exceeded the amount payable on profits determined for income tax purposes, the excess being equivalent to the corporate tax rate of 52 per cent multiplied by the amount deferred. In the published financial statements, this "excess" income tax was included in the taxes shown as payable on reported income, and set up in a special liability account described as "Deferred Federal Income Taxes." This deferred liability would be transferred to the current liability heading "Accrued Income Taxes" in future years when amortization was recorded on the books but disallowed for tax purposes (disallowed since the full amount would have been allowed in a previous year). The net result would be that each year's income statement would show the income taxes apparently payable on reported profits, but the liability shown for current payments would be the amount actually payable after the special recomputation of income for tax purposes. The deferred tax account would, of course, show a zero balance at the end of the amortization period chosen by TWA.

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[2] Paragraph 241.2-4(c) of the "Uniform System of Accounts and Reports for Air Carriers," as published in the Federal Register of June 23, 1956, stated as follows: "Expenditures incurred during the current accounting year which demonstrably benefit operations to be performed during subsequent accounting years to a significant extent shall be deferred and amortized to the period in which the related operations are performed when of sufficient magnitude to distort the accounting results of the year in which incurred."

CURRENT PROBLEM

Exhibits 3 and 4 give some detailed information on the expenses under consideration. They had been prepared by Mr. Smith on the basis of actual accruals to date, plus budgeted estimates of future trends.

Exhibit 3, "Acquisition Expenses," shows the main expense headings for all the activities concomitant with the actual purchase of the jets, "purchase" being used in the sense of the whole process involved from the time that acquisition first came under consideration until the planes were delivered.

Exhibit 4, "Integration Expense," includes all activities from receipt of the planes until the time that they were placed in revenue service. For example, a considerable sum of money was spent on introductory advertising, acquainting the public with the availability, comfort, and the advantages of jet flights. Some of the other important categories included in integration activities would be training of personnel (ground and air staff), publicity and proving flights, maintenance and other operating expenses during the integration period, and direct administrative expenses while all this was taking place.

Up to the end of 1958, TWA had simply gone ahead on the presumption that the same policy would be followed with regard to the jets as had been developed when the new Lockheed planes were introduced. The fact that total deferrals up to that time were a very minor part of the anticipated total was very probably the reason why no serious attention was paid to the matter before 1959. When Mr. Smith began to study the question in 1959, however, he did so with the full expectation that 1959 and 1960 would see tremendous expenditures under the headings in question.

Mr. Smith's first impulse (to use the same amortization basis as had been used on the Lockheed integration expenses) was checked when he learned from a high official in another major airline that it had chosen a seven-year basis. Furthermore, there was talk that another airline had chosen a ten-year period. Mr. Smith started wondering just what basis TWA *should* use to amortize the deferred expenses. Should they be deferred at all? Since jet service was coming in quite fast in 1959, he felt that he could probably argue that the expenditures made in that year were "current" operating expenses, even though they did also benefit future periods.

Another question that came into Mr. Smith's mind was whether he might choose different treatments for different classes of expenses included under the main headings. For example, he wanted to anticipate the problems that might arise if TWA were to assume ownership of all or some of the planes during the integration period. In that event, there would be no rentals paid, but TWA would bear interest and depreciation expense. In the opinion of his assistant, Mr. Jones, depreciation was something that was quite clearly "gone," and Mr. Jones didn't like the idea of deferring any of it.

Mr. Smith noted the following facts that might help him in his decision. First, the "mid-point" of the integration period of the jet fleet could probably be said to be around December 1959-January 1960. Second, the lives used in calculating depreciation on the planes would probably be ten years for the airframes and five years for some engines and seven years for others. TWA would use depreciation bases comparable to those used by other air carriers, if and when it took over the planes from the holding company.

Required

1. Answer the questions which Mr. Smith posed toward the end of the case: What basis should TWA use to amortize the deferred expenses? Should they be deferred at all? Should any differentiation be made between different classes of expenses?
2. Show the deferred income tax account in TWA's books relative to the jet acquisition and integration program, under the amortization base you have selected. Start with the year ended December 31, 1956, and continue until the account is reduced to a nil balance. You may assume an income tax rate of 50 per cent.

EXHIBIT 1

Consolidated Balance Sheets at December 31, 1957 and 1958*
($000,000)

	1958	1957
Current assets:		
Cash & U.S. Govt. securities	$ 41.2	$ 30.0
Accounts receivable	23.9	24.0
Inventory of spare parts, etc.	12.5	13.8
Prepayments	2.6	2.3
Total current assets	$ 80.2	$ 70.1
Noncurrent assets and investments	$ 3.0	$ 1.9
Property and equipment—at cost	$339.0	$324.0
—less depreciation	177.8	151.9
—net	$161.2	$172.1
Deferred debits:		
Long-term prepayments	$ 1.7	$ 1.7
Costs deferred re new overhaul base	2.0	2.7
Costs deferred re aircraft acquisition and integration†	4.7	4.2
Miscellaneous	1.5	0.9
Total deferred debits	$ 9.9	$ 9.5
Total	$254.3	$253.6
Current liabilities:		
Short-term notes payable to banks	-	$ 12.0
Current maturities of long-term debt	$ 14.2	12.2
Accounts payable, deposits, & accruals	44.6	34.4
Accrued income taxes	0.2	0.5
Unearned revenue	5.7	5.8
Total current liabilities	$ 64.7	$ 64.9
Long-term debt‡	$ 67.1	$ 63.2
Deferred Federal income taxes	$ 12.3	$ 13.6
Stockholders' equity:		
Capital stock, $5 par	$ 33.4	$ 33.4
Paid-in surplus	48.9	48.9
Retained earnings§	27.9	29.6
Total stockholders' equity	$110.2	$111.9
Total	$254.3	$253.6

*Summarized from published financial statements.

†Including nonjet fleets.

‡Includes notes payable to Hughes Tool Company, $18.1 million in 1958 and $5.8 million in 1957.

§Debt agreements prohibited payment of cash dividends in both years.

EXHIBIT 2

Operating Results, 1950-1958*, and Estimate for 1959

	1959 (est.)	1958	1957	1956	1955	1954	1953	1952	1951	1950
($ millions)										
Passenger revenue . .	$300	248	231	210	189	174	160	135	114	88
Other revenue	50	37	33	30	28	30	27	26	28	29
Total Operating Revenue	$350	285	264	240	217	204	187	161	142	117
Wages & Salaries . . .	$125	115	110	101	85	77	74	63	53	45
Depreciation, amortization, obsolescence†	35	32	27	20	20	22	23	17	12	11
Other expenses	170	139	132	123	100	82	79	66	61	50
Total Operating Expenses	$330	286	269	244	205	181	176	146	126	106
Operating income . . .	$ 20				12	23	11	15	16	11
(Loss)		$ 1	5	4						
Income taxes	$ 11	1	(3)	(2)	7	13	6	7	8	3
Net Income (Loss) . . .	$ 9	(2)	(2)	(2)	5	10	5	8	8	8
(thousands)										
Revenue passengers . .	5,500	4,723	4,818	4,428	4,048	3,594	3,140	2,573	2,223	1,706
(millions)										
Seat miles flown	8,000	7,256	6,985	6,202	5,405	4,768	4,110	3,155	2,577	2,264
Revenue ton miles . . .	650	514	492	452	405	373	336	274	234	186
(%)										
Payload factor	62.5	57.8	57.2	60.7	61.8	64.2	65.7	67.8	66.8	61.2

*Summarized from 1958 Annual Report.

†Excluding write-offs discussed in this case, except to the nominal extent that current policy allowed for such write-offs (dating from and including 1956).

EXHIBIT 3

Jet Aircraft Acquisition Expenses, 1956-1960*
($000)

	1956	1957	1958	1959	1960	Total
Salaries						
Planning and research	$10	$ 75	$150	$350	$275	$ 860
Technical services	5	25	50	100	100	280
Travelling	10	15	20	30	25	100
Communications	-	5	10	15	20	50
Other	-	-	5	50	45	100
	$25	$120	$235	$545	$465	$1,390

*Derived from corporate records.

EXHIBIT 4

Jet Aircraft Integration Expenses, 1956-1960*

Advertising and promotion	$ 3,600,000
Salaries and wages (crew maintenance, sales and administration)	6,600,000
Travel	1,000,000
Communications	50,000
Maintenance materials	300,000
Outside services	150,000
Stationery and supplies	300,000
Plane rentals	1,600,000
Insurance and taxes	450,000
Maintenance provision	600,000
Fuel and oil	950,000
	$15,600,000

Annual breakdown only available in total, as below:

1957	$ 100,000
1958	850,000
1959	10,400,000
1960	4,250,000
	$15,600,000

*Derived from corporate records.

CASE 40

Francono Cosmetics Company

Early in 1961, Mr. James Clair of Pittsburgh, Pennsylvania, was attracted by an advertisement he read in *The Wall Street Journal* (see Exhibit 1). This advertisement offered for sale a relatively small cosmetics company located in Santa Paula, California. It was particularly appealing to Mr. Clair since he was planning to retire from his executive position in Pittsburgh and had decided he would purchase a small business of his own to "tinker" with during his retirement years. He and his wife had decided that Southern California would be their choice of location for retirement. Mr. Clair had been trying to locate an opportunity to purchase a company for several years but had not been successful in his search up to this time, even though he had examined several prospective offers in detail. In order to better appraise this particular opportunity, Mr. Clair asked his son Rob, who had recently received a degree in business administration and was currently living in Riverside, California, to contact Francono Cosmetics Company and examine the company in as much detail as he felt would be necessary in order to advise his father relative to acquisition of the company. Subsequently, Rob Clair made an appointment with Mr. Francono to discuss the company's history and operation.

COMPANY HISTORY

Mr. Francono had started his cosmetics manufacturing company in the early 1920's at about the time of the advent of the motion picture industry. The company grew with the motion picture industry by supplying motion picture producers with various types of special make-up materials as well as lipstick, hair coloring, shampoo, nail polish, skin coloring, and so on. Francono Cosmetics Co. not only manufactured these items but also distributed them to the industry. Peak sales of nearly $10 million were reached in 1939, but after the war sales began to decline as other large manufacturing companies solicited the cosmetic business of the motion picture industry.

These companies were able, through product research, to develop nonsmear lipstick, all-day mascara, fluorescent nail polish to match any wardrobe, and other fashion cosmetics, whereas Francono continued to promote the same products it had pushed prior to 1941. Mr. Francono did not believe in "wasting money on hair-brained products that will never be accepted," and because of this, no new cosmetic ideas or product improvements were introduced by Francono to the motion picture industry. By 1955, the company's sales had declined to less than $1 million, and Mr. Francono decided to discontinue the manufacture of cosmetics and concentrate on selling other producers' products to his remaining customers. However, Mr. Francono found that he could not meet competitors' prices in selling to the motion picture industry, and in desperation he then decide to try selling cosmetics by mail in the retail market. The mail order sale of cosmetics commenced late in 1955 and grew from sales of only $500,000 in 1956 to sales of over $2 million in 1960. It was during 1960 that Mr. Francono, then in his early 70's, concluded that he would like to spend his retirement years traveling around the world and decided to sell Francono Cosmetics Company.

MAIL ORDER OPERATION

The sale of cosmetics by mail was a relatively simple operation. The principal selling medium was the sales catalogue which pictured and described each item Francono offered for sale. These catalogues were mailed to all names on selected mailing lists at various times during the year. Special Christmas and Easter catalogues featured not only gift-packaged women's cosmetics, but also listed such toiletries for men as hair cream, after-shave lotion, deodorants, and other similar items. These two "special" catalogues were far more comprehensive and costly to prepare than other mailings during the year, since these catalogues featured not only Francono's regular line, but also a large number of special items purchased especially for Christmas or Easter. These catalogues were printed in color, whereas the regular catalogues were printed in black and white. Color printing in itself tripled the cost of the special mailing.

Mr. Francono stated that the costs of the regular and Christmas catalogues were deducted as expenses in the year in which they were incurred, but that since the Easter catalogue was sent out in December, this cost was capitalized and deferred until the succeeding year. The balance sheet as of December 31, 1960 (Exhibit 2) showed deferred catalogue expense of $210,000. Approximately $90,000 of this balance was the cost (including labor used in addressing the catalogue) of the 1960 Easter catalogue, whereas $120,000 was the cost of the 1961 Easter catalogue.

Both regular and special catalogues were mailed to each person on Francono's mailing list. The mailing list consisted of 2,600,000 names of potential customers which had been built up since 1956 by various means. Mr. Francono maintained that "this list is the heart of our business and is certainly the most important single asset we own. Its value, as shown on our December 31 balance sheet (Exhibit 2), is at cost, but I believe that each name on the list is worth at least $1, since the average of the annual purchase orders we receive from any one name is about $6." He further commented, however, that purchase orders were received from only 10 to 15 per cent of the names on the list during any one year, and if a name did not make a purchase during any three consecutive years, it was dropped from the list. Approximately 500,000 names were dropped from the list each year, but these names were replaced by new ones acquired in various ways. He estimated that between 650,000 and 750,000 names formed a permanent base mailing list: each one of these names usually placed an order at least once during any three-year period. This permanent base list had increased each year since 1956. An analysis of the mailing list asset (Exhibit 2) showed the following breakdown:

	Cost Incurred Prior to 1960	*Cost Incurred in 1960*
Names purchased from other mail order vendors. (The 1960 expenditure was for 500,000 replacement names plus 500,000 names to expand the list.)	$375,000	$106,000
Names secured through newspaper and magazine ads offering a free gift to those who sent name and address to a designated P.O. Box (included cost of gift items)	130,000	45,000
Labor cost of purging (deleting) those names from the list that had not ordered for three consecutive years, and in eliminating duplicate names and following up change of address notices	40,000	10,000
Totals	$545,000	$161,000
		545,000
Total cost of mailing list		$706,000

In addition to the "premium offer" advertising noted above, Francono Cosmetics purchased six "back cover" magazine ads, in a leading national woman's monthly magazine, which had been run from September through December 1960 and were to run during January and February 1961. The cost of these six ads, $300,000, had been capitalized as prepaid advertising on the December 31, 1960 balance sheet, since Mr. Francono anticipated that these advertisements would have a continuing impact on sales for a two- or three-year future period; this was the first time that full-page back cover advertising had been used by Francono.

Each catalogue contained an order blank which was to be filled out, listing the items desired, and mailed back to Francono with a check covering the amount of the purchase. Francono then sent the merchandise to the purchaser. On occasion, the item which a purchaser requested would be out of stock, and in such case, Francono sent the purchaser a preprinted negotiable check (redeemable in cash at any bank) which showed the amount to be refunded to the purchaser or applied toward future purchase orders. However, these negotiable checks were not issued to a purchaser who returned defective or unsatisfactory merchandise to Francono for refund. In this case, a nonnegotiable refund voucher (good *only* at Francono's in exchange on future purchases) was issued to the purchaser. Mr. Francono commented that it was a funny quirk of human nature, but some people never did cash in their refund checks or vouchers. He had a summary which showed, by year, the amount of checks and vouchers never redeemed as follows:

Year Issued	*Nonnegotiable Refund Voucher Amount*	*Negotiable Check Amount*
1956	$1,190	$ 560
1957	1,250	720
1958	1,700	1,070
1959	2,090	960
1960	2,880	1,900
Total	$9,110	$5,210

No entry was made when either of these instruments was sent to the purchaser, and none was made when the nonnegotiable refund voucher was redeemed. In effect, this resulted in recognizing revenue at the time of the original sale and in recognizing the associated expense at the time when the credit instrument was returned for other merchandise. When the negotiable instrument was cashed, a debit was made to cost of goods sold and a credit to the cash account.

Because Mr. Francono had founded the company and had grown up with it, he had never been very interested in "wasting good money on accounting overhead," and prided himself in the fact that he was "able to pretty much run the business out of my head," without the use of elaborate and detailed financial reports. He commented, "As long as our bank account has a positive balance, we're doing all right, and as can be witnessed by the growth of the cash account through the years, we have been running a profitable operation."

As noted earlier, however, Mr. Francono had prepared a year-end balance sheet (Exhibit 2) and a profit and loss statement for the 1960 calendar year (Exhibit 3). A cursory examination of these statements convinced Rob Clair that he would have to recast both statements before he could clearly appraise the year's operations. The balance sheet contained both 1959 and 1960 year-end balances, whereas the profit and loss statement appeared to be more of an accounting for cash rather than a matching of costs and revenues.

Rob hoped that from the information he had obtained, he would now be able to prepare meaningful financial statements which would form the basis of his decision as to whether or not he should continue his evaluation of Francono Cosmetics Company, as a potential investment opportunity.

Required

1. Prepare revised financial statements which would be useful to Mr. Robert Clair in his appraisal of Francono Cosmetics Co. as a potential investment opportunity.
2. Do you think that these statements would be useful to Mr. James Clair in helping him to arrive at a purchase price? If not, recommend the steps you would take to make them more meaningful and helpful to him.

EXHIBIT 1 Advertisement in *The Wall Street Journal*

LOCATE IN SANTA PAULA, CALIFORNIA
and still
Net Over 20% on Your Investment!

Well-known, firmly established, cosmetics manufacturer and distributor has decided to retire and will sell his profitable business to a responsible party. Sales of over $2 million per year with 50% gross and well over 20% net profit on invested capital. Unparalleled opportunity! All replies confidential.

Box ______
The *Wall Street Journal*

EXHIBIT 2 Balance Sheet as of December 31, 1960

Assets		
Cash and government bonds—December 31, 1960		$1,433,000
Merchandise inventory—composed of cosmetic gift items not yet sold (at cost) as of December 31, 1959		175,000
Deferred catalogue expense		210,000
Prepaid advertising		300,000
Total current assets		$2,118,000
Fixed assets—net of depreciation (as of 1-1-60)		
Office furniture and equipment (10 yr. remaining life)	$ 25,860	
Automobiles (3-year remaining life)	14,220	
Paintings—(nondepreciable works of art)	8,600	
Leasehold improvements*	110,300	
Mailing lists	706,000	
Total fixed assets		864,980
Prepaid charges†		57,000
Total assets		$3,039,980
Liabilities and Capital		
Mail order merchandise not paid for as of 12/31/60		$ 296,000
Note payable—City National Bank (6% payable annually on December 31)		50,000
Capital stock and surplus—(wholly owned by Mr. Francono)		2,693,980
Total liabilities and capital		$3,039,980

*This was the remaining unamortized cost of certain improvements to the building which had been made in 1950. Mr. Francono was amortizing the cost of these improvements over their estimated life of 40 years. The present lease on the building and adjacent warehouse was in effect until January 1, 1975.

†Prepaid charges as of January 1, 1960

Prepaid insurance premium—applicable to period January 1, 1960 to July 1, 1960	$ 3,500
Office and shipping supplies inventory	13,600
Postage—prepaid metering charges	3,900
Prepaid rent—six months	36,000
	$ 57,000

EXHIBIT 3

Profit and Loss Statement for the Year Ending December 31, 1960

Sales—$250,000 of sales orders were included, on which the merchandise would not be shipped until January 1961		$2,525,000
Less cost of goods sold:		
Merchandise purchased during 1960*	$1,465,000	
Less merchandise inventory 12-31-60	360,000	1,105,000
Gross margin on sales		$1,420,000
Less other operating costs:†		
Salaries and wages of employees. This amount did not include the December payroll of $12,850 which was not recorded in the books until January, but did include $3,500 of labor which was also charged to the deferred catalogue expense account	$ 112,450	
Salary and expense account of Mr. Francono	76,000	
Heat, light, and power. Included December 1959 payment of $3,500 but did not include December 1960 billing of $6,300	53,400	
Insurance. Premium for a three-year policy covering the building and contents from July 1, 1960 to July 1, 1963	36,000	
Office and shipping supplies. An inventory of the storeroom showed that as of 12/31/60 $7,500 of these supplies had not been consumed during 1960	27,500	
Postage and shipping charges. Included prepaid metering of 3rd-class mailings of $7,600 as of December 31, 1960	76,250	
Cost of regular catalogue mailings—fall, winter, spring, and summer catalogues	126,300	
Cost of 1960 Christmas catalogues. Included all costs (labor, postage, and direct materials) associated with the catalogue distribution	113,100	
Telephone and telegraph. Included billings for the 10-month period January 1-October 31, 1960.	6,800	
Rent on building and warehouse. For the period July 1, 1960-July 1, 1961 including an increase in the amount as stipulated in the lease contract	79,200	
Payroll and property taxes. Of this amount, $11,800 had not been paid to the required agencies as of 12/31/60	19,600	726,600
Net profit before tax		$ 693,400

*The merchandise purchased during 1960 ($1,465,000) included the cost of items used to redeem $6,300 of nonnegotiable refund vouchers, and included an accounting charge of $3,000 for the redemption of negotiable checks in cash. Two-thirds of the vouchers and checks had originally been issued in 1960, while one-third had been issued in prior years.

†The unpaid voucher file contained $8,150 of miscellaneous unpaid bills as of December 31, 1960, that had not been recognized in either the balance sheet or the profit and loss statement.

CASE 41

Textron Inc. (E)

Obligations Under Long-Term Leases

In March 1959, an article by Mr. Donald Gant entitled "Illusion in Lease Financing" appeared in the current issue of the *Harvard Business Review* and aroused immediate and widespread controversy in financial circles of the business world. The thrust of Mr. Gant's article was that the recent rapid increase in the use of lease financing (a method of acquiring the use of an asset via a long-term lease rather than by purchasing it) was due to confused thinking on the part of many businessmen. Mr. Gant contended that lease financing was nothing more than another form of debt financing in that, in either event, the person acquiring the asset made a noncancelable promise to make a series of future payments which, in total, exceeded the purchase price of the asset. Leasing companies, on the other hand, did not usually compare lease financing to debt financing but stressed the additional profits the lessee could earn with the working capital "freed-up" by leasing.

Mr. Gant placed much of the blame for confusion about lease financing on the accounting profession, pointing out that generally accepted accounting principles did not require a company to report its obligations for future lease payments as liabilities even though similar obligations on, for example, conditional sales contracts would be reported as debt on the balance sheet. The article contained several examples of the significance of the lease obligations then outstanding for well-known companies in the retail chain store and the petroleum industries, and supported Mr. Gant's contention that, if lease obligations were converted into an equivalent amount of debt and added to the conventionally stated liabilities, the corporation's financial ratios (particularly the debt/equity ratio) would be substantially worsened.

Mr. Royal Little, Chairman of Textron Inc., had been one of the leaders in the development of long-term leases as a method of corporate financing. At the date of merger with American Woolen and Robbins Mills, Textron was operating a total of 29 plants, of which 13 were owned by the company and 16 were held under long-term leases. Subsequently, as Textron expanded, new plants were typically acquired by purchase, although frequently a plant might be sold to an investor and leased back for a long period. At the end of 1958, Textron operated 68 plants, of which 30 were leased. By the end of 1959, the number of Textron plants had grown to 82, of which 34 were leased.

As a result of the increasing public interest during 1959 in the reporting of lease obligations, Textron's management decided to re-examine its policy concerning the disclosure of such obligations. In prior years, the company had included a footnote to the balance sheet in its annual report; for example, Note J in the 1958 report read as follows:

> Annual rentals payable under long-term leases are approximately $2,500,000. Under certain leases, Textron is also required to pay for insurance, taxes, and repairs. In 1958, certain machinery and equipment was sold at a profit of $1,003,163 and leased back for a period of seven years.

As an alternative to the type of disclosure used in 1958, Textron was considering reporting the "discounted" or "present value" of all future lease obligations, the method of disclosure advocated by Mr. Gant and several other writers.[1] As a first step, the controller's department prepared a list of all leases in effect at the end of 1959. A summary of these leases, by type of item leased, is shown below:

Rental Payments on 338 Leases

Items Leased	*Paid in 1959*	*Due 1960–1979*
Land and buildings	$2,245,000	$18,698,000
Machinery and equipment	1,379,000	8,343,000
Automotive equipment	1,027,000	1,329,000
Office equipment	191,000	339,000
Total	$4,842,000	$28,709,000

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[1] The method is explained in detail by Gordon Shillinglaw, "Leasing and Financial Statements," in *The Accounting Review* (October 1958), p. 581.

The next step in the calculation, illustrated in Exhibit 1, was to recast the future payments according to the year due and to adjust for certain items. The total shown above of $28,709,000 was net of the anticipated revenue from the sublease of part of the plant operated by one of the divisions. The amount of this income was added back to determine Textron's total future obligations. The next two adjustments in Exhibit 1 were to eliminate certain types of leases: those expiring within three years and those related to the lease of automotive equipment. The total payments on leases expiring within three years, $2,141,000, included $1,246,000 of lease payments for automobiles; the remaining $83,000 due in 1963 on automobile leases was therefore eliminated as a separate step in Exhibit 1. These two categories of lease payments were eliminated because they were only short-term obligations and were typically renewed on a year-to-year or two- or three-year basis. Textron's management subscribed to the theory that such short-term leases were not equivalent to debt but were more in the nature of annual operating expenses.

A final adjustment in the calculation of Textron's future long-term lease obligations at the end of 1959 was to eliminate the future payments to be made on a lease renewal beginning in March 1961 and continuing for ten years. The original lease on this plant had been for ten years from March 1951 to March 1961, and Textron had an option to renew for an additional ten-year period. In December 1959, Textron notified the lessor that it intended to exercise the renewal option, but because the original term of the lease still had more than a year to run, the lease payments under the renewal provisions were excluded from the computation at the end of 1959.

Exhibit 2 (columns 1 through 4) illustrates the discounting procedure by which the $26,565,000 of future lease payments were reduced to a present value amount of $19,557,000. The theory behind this calculation was that a payment to be made in the future included an element of interest cost which should be eliminated in order to determine the equivalent principal amount of debt represented by the payment. Thus, although Textron was obligated to pay $3,061,000 in 1960, this amount might be considered to be a principal sum of $2,972,000 as of December 31, 1959, plus $89,000 of interest (at 6 per cent) until the payment was due on June 30, 1960. Actually, of course, the $3,061,000 of 1960 payments would not be paid all at once on June 30, 1960, but would be spread throughout the year. To simplify the calculation, however, Textron decided to assume that each year's payments would be made in the middle of the year. The company also assumed that 6 per cent would be an appropriate interest rate for arriving at imputed interest costs, and that a semiannual compounding period was the best average period to use since some lease payments were made monthly, some quarterly, some semiannually, and some annually.

Required

1. Do you think the $19,557,000 of discounted future lease payments is an obligation similar to Textron's other debt obligations? Should Textron show this amount as a liability on its balance sheet? If so, should the offsetting entry to record the liability be a decrease in net worth or an increase in assets? If you do not think the lease obligations should be added to the liabilities, how should these obligations be disclosed, if at all?
2. Do you approve of the various adjustments and assumptions made by Textron in computing the $19,557,000?
3. Most of Textron's lease payments during a year were charged to "Cost of Goods Sold" in the Profit and Loss Statement. As can be seen in the last two columns of Exhibit 2, assuming that no additional leases were signed during 1960, the present value of the remaining future lease payments at the end of 1960 would be $17,596,000, a decrease from the end of 1959 of $1,961,000. Textron's lease payments during 1960 of $3,061,000 may thus be broken into two pieces: $1,961,000 of principal repayments on the equivalent debt and $1,100,000 of interest at 6 per cent on the "debt" outstanding during 1960. Do you think this imputed interest cost should be charged to Cost of Goods Sold or reported as additional interest expense below the Operating Profit line on Textron's income statement?

EXHIBIT 1

Computation of Total Long-Term Lease Obligations
(All amounts in thousands)

	Total Future Payments	Due in 1960	Due in 1961	Due in 1962	Due in 1963	Due 1964-1979
Net obligations.	$28,709	$4,608	$3,454	$3,312	$3,134	$14,201
Add: Income on sublease	221	37	37	30	27	90
Subtotal	$28,930	$4,645	$3,491	$3,342	$3,161	$14,291
Less:						
Payments on leases expiring within 3 years	$ 2,141	$1,584	$ 353	$ 204		
Payments on auto leases expiring after 3 years. . years	83				$ 83	
Early renewal of lease expiring in March 1960 . .	141		14	14	14	$ 99
Total deductions. .	$ 2,365	$1,584	$ 367	$ 218	$ 97	$ 99
Total obligations on long-term leases	$26,565	$3,061	$3,124	$3,124	$3,064	$14,192

EXHIBIT 2

Computation of Discounted Value of Long-Term Lease Obligations at End of Year 1959 and Pro Forma End of 1960
(In thousands)

Year During Which Payments Are Due	Amount of Lease Payments	Discount Factor 6%, Semi-Annual*	Valuation on Dec. 31, 1959 of Future Payments	Discount Factor 6%, Semi-Annual*	Valuation on Dec. 31, 1960 of Future Payments
1960	$ 3,061	.9709	$ 2,972		
1961	3,124	.9151	2,859	.9709	$ 3,033
1962	3,124	.8626	2,695	.9151	2,859
1963	3,064	.8131	2,491	.8626	2,643
1964	2,458	.7664	1,884	.8131	1,999
1965	2,092	.7224	1,511	.7664	1,603
1966	1,482	.6810	1,009	.7224	1,071
1967	1,402	.6419	900	. 810	955
1968	1,023	.6050	619	.6419	657
1969	744	.5703	424	.6050	450
1970	662	.5375	356	.5703	378
1971	640	.5067	324	.5375	344
1972	636	.4776	304	.5067	322
1973	591	.4502	266	.4776	282
1974	583	.4243	247	.4502	262
1975	583	.4000	233	.4243	247
1976	564	.3770	213	.4000	226
1977	334	.3554	119	.3770	126
1978	308	.3350	103	.3554	109
1979	90	.3158	28	.3350	30
Totals	$26,565		$19,557		$17,596

*Financial Compound Interest and Annuity Tables, Financial Publishing Company, Boston, 1942, p. 591.

CASE 42

Textron Inc. (F)

Reserve for Self-Insurance

In January 1958, the controller of Textron Inc., was reviewing the company's accounting policy concerning the cost and liability of Textron's self-insurance plan, to be reported in the annual report to stockholders for 1957. Late in 1956, Textron had decided to become a self-insurer for claims under workmen's compensation laws in certain of the states where it operated. These laws established the liability of an employer to compensate its employees in the event of disability accidents suffered by the employee on the job. Typically, employers protected themselves against claims under these laws by taking out an insurance policy which provided that, when an accident occurred, the employer's liability would be paid by the insurance company.

Textron had decided to have certain divisions become self-insurers for these claims, as permitted by law, in order to lessen the total cost to the company. Essentially, the idea was to eliminate the insurance company as a "middleman" in the payment of claims, and to permit Textron to earn the insurer's profit from taking the risk that the premiums paid in would be sufficient to cover the cost of the claims paid out. In the long run, of course, insurance companies had to charge the insured (Textron and other companies) sufficiently high premiums to pay all claims, so Textron's management was confident that the company's costs under the self-insurance program would be lower, over a period of years, than if commercial insurance companies were employed.

The premiums for ordinary workmen's compensation insurance were standard in the trade for each type of job and industry covered. These standard rates, charged by all insurance companies, were referred to as "manual" rates. Most insurance companies, while charging the manual rates, refunded a portion of the premium at the end of each year based on the volume of claims ("loss experience") paid in behalf of the insured.

During 1957, Textron had accounted for the cost of workmen's compensation insurance by charging its divisions with premiums at the manual rate and crediting these amounts to a new account, "Reserve for Self-Insurance Claims." Claims by the divisions were paid during the year and charged against this reserve account. Reviewing the transactions in the reserve account at the end of the year, Textron's controller found that $330,245 had been credited to the reserve (and charged as an expense to the divisions) and $101,792 had been paid out in claims. In addition, the reserve had been charged for (1) $11,799 for reinsurance premiums under a "catastrophe" policy to protect the company against all claims from any one accident exceeding $15,000, and (2) $37,197 for fees paid to the Insurer's Service Corporation, a service organization which assisted Textron in the administration of its self-insurance program. Thus, the balance in the reserve account at the end of 1957 was $179,457.

At the controller's request, Insurer's Service Corporation submitted a report in early 1958 stating Textron's estimated liability for unsettled claims as of December 31, 1957. This liability was estimated at $52,591 and, in the opinion of Textron's controller, represented the minimum balance that should be carried forward in the reserve account. Deducting this liability indicated that Textron had saved $126,866 by its program of self-insurance in 1957. The controller knew, however, that all reputable insurance companies provided contingency reserves against the possibility that claims in future years might exceed premium income. These reserves, in effect, were a protection against future losses, and had the effect of smoothing out the impact of the fluctuating volume of claims from year to year.

For federal income tax purposes, only claims and other expenses actually paid during a year were deductible from the corporation's taxable income for that year.

Required

1. What amount should be carried forward in the "Reserve for Self-Insurance Claims" at the end of 1957?
2. What policy would you recommend that Textron follow in accounting for

the cost of workmen's compensation claims and the reserve for self-insurance in future years? Draft a statement of this policy specifying how these costs and liabilities should be determined.

3. What adjustment, if any, would you recommend to recognize the difference between each year's income tax deductions and the expenses charged in published financial reports?

CASE 43

Continental Minerals Company*

As of 1960, the Continental Minerals[1] Company had been engaged in nation-wide mining and manufacturing operations for many years. The Company operated a number of plants under a "process" cost accounting system which the controller believed to be well ahead of the systems used by most similar companies in respect to the usefulness of the system in facilitating the control of manufacturing costs. Nevertheless, during several months of a recent business recession, the controller had decided to re-examine every aspect of the company's cost control system. As a part of his re-examination, he had arranged a meeting of three plant works managers, three plant office managers, and three representatives of the home office operating management.

At the conclusion of the meeting several basic areas had been found in which improvements in the current cost control system were thought to be possible. One of the areas was that of certain erratic costs which bore no consistent relationship to current levels of monthly production. Three classifications of costs were identified as being of this nature: (1) vacation and other unworked paid holidays, (2) certain administrative and service costs incurred at the plant level, and (3) non-routine maintenance. (Non-routine maintenance was defined as any maintenance job which was covered by a special budget and cost over $500.) The matter of maintenance cost was selected for immediate investigation.

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[1] All names, figures, and organizational designations have been disguised.

A distinction was made in the Continental Minerals Company between routine and non-routine maintenance. Routine maintenance consisted of such work as oiling, greasing, and repair work of a regular nature. This class of maintenance varied with the level of operations. The typical non-routine maintenance cost consisted of expenditures for the renewal of parts at irregular intervals—expenditures which were not to be charged to the asset or depreciation reserve accounts.

In studying the control of these costs, it was found that there was an apparent tendency for maintenance expenditures to be greater in months of high production volume. This pattern had the effect of minimizing the impact of maintenance expenses per unit costs of products—the product could "bear" heavier maintenance costs during months of high volume. During the meeting mentioned above, one of the works managers had suggested that the company might get more for its maintenance expenditures if those expenditures were made during periods of low volume production. Such benefits might result from better planning of work, less overtime maintenance work, and less interference with production.

All expenditures of funds for maintenance purposes were approved by the home office. When volume of production fell materially below expected levels, the home office frequently canceled prior approvals of maintenance expenditures in cases where the funds had not yet been expended. The works managers had argued that these slack periods were the ideal times to perform maintenance, and they wondered whether it might be possible for maintenance to be performed during periods of low production without having the maintenance expenses reduce still further the lower profits which would be reported during such periods.

Shortly after these discussions, the controller outlined a different approach which he thought Continental Minerals might follow with respect to its maintenance charges. Under the new proposal, non-routine maintenance expenditures would be budgeted for the forthcoming year. The system also required each plant to estimate the volume of production in each of its departments for the entire calendar year in advance. The annual volume estimates thus made would be revised and updated as necessary each month. A portion of the annual maintenance budget would be charged into costs, each monthly charge being determined by the ratio of the current month's production to the expected annual volume. Thus if the maintenance budget of a given department for the year were $120,000 and estimated annual volume were 1,200,000 tons of product, the monthly charge for maintenance would be $.10 times the actual tons produced, regardless of actual maintenance expenditures.

If a revised estimate of annual production were required during the year, a revised charge for maintenance would be made. For example, assume that actual production for the first four months of the year were charged with maintenance cost at $.10 a ton as follows:

	Tons	*Maintenance Charged to Costs*
January	60,000	$ 6,000
February	55,000	5,500
March	70,000	7,000
April	40,000	4,000
Total for four months	225,000	$22,500

If it were estimated in May that the total annual production would be 1,005,000 tons instead of the 1,200,000 tons estimated earlier, then for the remainder of the year maintenance cost per tons would be $.125 a ton for the remainder of the year computed as follows:

	Tons	*Maintenance Cost*
Revised total	1,005,000	$120,000
Less actual to date	225,000	22,500
Estimate for remainder of year	780,000	$ 97,500

$97,500 ÷ 780,000 = $.125

As actual production occurred, the estimated maintenance cost per ton would be charged to the cost of the product for the month and a "Reserve for Maintenance" credited for a like amount. Actual expenditures would then be debited to the Reserve for Maintenance as they were made. At the close of the year, any balance in the Reserve for Maintenance account would be closed as an adjustment to the total maintenance cost for the year as a whole. It would not be treated as an adjustment for the last month of the year.

In his study of the problem of maintenance charges and their effects on Continental's operations, the controller considered a specific situation which had come to his attention from time to time. Near one of the Company's mining operations in a somewhat remote part of the country, the company had built a village with housing, stores, and roadways to attract an adequate labor force to the area. A utility company in the area, Western Power and Light Company, supplied electric power at a point some distance from the dwellings in the village where the power would be used. Consequently, rather extensive power installations had to be constructed and maintained at the expense of Continental to bring power into the village. The Company was thus faced with the task of developing a representative cost of power to determine whether the rates charged to residents were sufficient to cover cost of providing the service. In attempting to provide data for the cost of supplying electricity, it was observed that the erratic nature of maintenance expenses resulted in costs which for short periods of time were almost useless. A generally recognized problem of the current system was the necessity of time-consuming explanations of monthly variances in power costs due to erratic maintenance costs.

The controller contended that such an "accounting smoothing" device as a "Reserve for Maintenance" would help solve this difficulty. He added the opinion that going to a reserve or accrual basis for maintenance would also result in a better matching of cost with volume of production and hence with revenue. Also the disproportionate time now spent in analyzing and explaining changes in cost, resulting from uneven maintenance expenditures, could be saved.

Required

1. Evaluate the company's new policy of accounting for irregular maintenance cost.
2. In general, is an "accounting smoothing" device for expenses to be commended?
3. Is it proper in accounting to divorce costs based on historical expenditures, including commitments, from accrued costs based on mere expectations?
4. Does the method of tying maintenance cost to actual production, and hence sales, have validity in the process of matching expense and revenue?
5. Should the "accounting smoothing" device of a Reserve for Maintenance be carried beyond the current year?
6. If the maintenance budget were for a period longer than a year, how would you treat any debit or any credit balance in the Reserve at the end of the year? Justify.

CASE 44

Russey Electrical Service Company

Russey Electrical Service Company had for many years operated a service organization which performed service work on all forms of electrical appliances. The work was performed for individual owners of appliances on a service-charge basis. Early in 1954, it decided to add a sales organization for the purpose of marketing certain appliances under its own brand name. It bought these appliances under contract from various manufacturers who built them to the specifications of the Russey Company. In its sales program, the company placed great emphasis on a liberal warranty provision under which it agreed to make any and all adjustments and repairs for a two-year period. Such repairs were made by its service department and charged as costs of that department.

Results exceeded expectations. Sales had risen steadily year by year, and the management expected them to continue to increase in subsequent years. There was, however, some growing question as to whether the effect of the liberal warranty was being given adequate recognition in evaluating the results of operations and a feeling that the company's profits as shown on its books were misleading. The appliances purchased and sold by the company were generally in the novelty or "gadget" category and required rather frequent adjustment and repair. The company recognized that its increasing sales record was due, in substantial measure, to the unconditional two-year guarantee to perform free of charge any and all adjustments and repairs.

Prior to closing the books and preparing the 1956 financial statements, a management conference was held to review the situation. The following summary of the results of operations for the past four years, as shown by the company's books, was reviewed and discussed:

	1953	*1954*	*1955*	*1956*
Appliance sales		$300,000	$390,000	$ 500,000
Service department revenue	$600,000	575,000	560,000	580,000
Total revenues	$600,000	$875,000	$950,000	$1,080,000
Cost of appliance sales and direct selling costs		$180,000	$235,000	$ 300,000
Service department costs	$450,000	447,000	470,000	515,000
Total direct costs	$450,000	$627,000	$705,000	$ 815,000
Gross profit	$150,000	$248,000	$245,000	$ 265,000
General and administrative expenses	$ 70,000	$100,000	$120,000	$ 130,000
Federal income taxes*	32,000	59,200	50,000	54,000
	$102,000	$159,200	$170,000	$ 184,000
Net profit	$48,000	$ 88,800	$ 75,000	$ 81,000

* For purposes of this case, an arbitrary income tax rate of approximately 40 per cent has been used in determining the annual income tax. You may use this arbitrary rate in dealing with any income tax aspects involved.

The president said his immediate concern was that the total net income and retained earnings figures, as developed by the company's books and statements, were misleading both to management and as a basis of disclosure to the company's stockholders, in that the company was taking up appliance sales as income without giving adequate recognition to the warranty phase of the sales program. His attention was called to the fact that the present basis of accounting for revenues and expenses was consistent with Federal income tax requirements, in that revenues were recorded as received and expenses as actually paid or incurred. The president felt, however, that requirements for computing income taxes should not prevent the development of realistic figures in the company's books and statements, and that they should not prevent application of generally accepted accounting principles in disclosing the results of its operations and its present financial condition.

The service department manager criticized the figures from the standpoint of management usefulness. He pointed out that service department costs included work performed without charge under the warranties, and that no provision was made to include anything in service department revenues for such work. This, he pointed out, made any comparison between service department revenues and costs almost meaningless in interpreting the contribution made by that department to the net profit of the company. In fact, he pointed out, his department had lost some regular revenue business because of the demands for "free" service work under the warranties. He felt that consideration should be given to reflecting in service department revenues charges for warranty work on the same basis as for regular service work.

You have been asked to review the situation and to make appropriate recommendations. Your first step is to get together with the bookkeeper and the service manager to make an analysis of costs and revenues. The company did not keep formal cost records by jobs, but informal memorandum records kept by the service department provided an adequate basis for sampling and the development of what you may regard as a reliable analysis. The following information was developed from this analysis:

1. The service department continued to maintain a fairly constant markup for regular service work (of 33⅓ per cent on cost), with the result that costs for this work continued to maintain approximately the same relationship to related revenues indicated by 1953 operations (that is, 75 per cent).

2. An analysis was made to determine the warranty service costs incurred in 1954, 1955, and 1956 on sales made in 1954. This showed that total warranty service costs incurred on 1954 sales over the warranty period amounted to about 20 per cent of such sales (5 per cent in 1954, 10 per cent in 1955, and 5 per cent in 1956). A similar analysis was made of warranty service costs incurred in 1955 and 1956 on 1955 sales, and costs incurred in 1956 on 1956 sales. This further analysis indicated rather clearly that the pattern of warranty service costs in relation to sales established for 1954 sales would also apply to 1955 and 1956 sales. It was therefore felt that projections of estimated future warranty costs could be made on that basis. The following schedule summarizes the results of these analyses and projections. (You may assume these to be reliable figures for purposes of this case.)

	Warranty Service Costs Incurred in			*Projections of Estimated Warranty Service Costs in Future Years on Past Sales*	
	1954	*1955*	*1956*	*1957*	*1958*
1954 sales	$15,000	$30,000	$15,000		
1955 sales		19,500	39,000	$19,500	
1956 sales			25,000	50,000	$25,000
Totals	$15,000	$49,500	$79,000	$69,500	$25,000

Required

1. Develop your comments and recommendations with regard to the company's accounting and financial reporting. It will be helpful if you can be as specific as possible, keeping in mind that the company has not closed its

books or prepared its formal financial statements for 1956 and that it wants guidance as to what entries it should make at that time to give effect to your recommendations, as well as with respect to the accounting procedures it should follow in the future.

If there are reasonable alternatives the company might adopt, it is suggested you mention them and indicate your reasons for the action you recommended.

B. *Multi-Policy Formulation for the Business Enterprise*

CASE 45

The Boston Patriots

Early in August 1960, Mr. Roger Dolan, an executive of a medium-size electronics firm, was given a prospectus for the American League Professional Football Team of Boston, Inc., commonly referred to as the "Boston Patriots," by his broker, one of the underwriters of the stock referred to in the prospectus. After a cursory examination of the prospectus, Mr. Dolan became interested in the Patriots as a speculative investment opportunity and after an intensive examination of the prospectus and other research, he was able to assemble certain information which he thought would be an adequate base for his investment decision.

THE AMERICAN FOOTBALL LEAGUE

The prospectus stated that, "The American Football League was organized in August 1959 as a professional football sports organization and since that time has granted franchises to teams in eight cities including Boston (see Exhibit 1). Each team is now organized with a general manager, coaching staff, home stadium, a full squad of players, and is ready to begin performance as of September 1960."

The football season commencing September 1960 was to be the league's first season, and the schedule called for each team to play each of the other seven teams once at home and once away. Several preseason exhibition games were to be played by League teams, and a postseason championship game between the winners of the Eastern and Western Divisions of the League was also planned.

ORGANIZATION OF THE BOSTON PATRIOTS

The prospectus stated that the Boston club's franchise had been granted to William Sullivan, Jr. in November 1959, and was the eighth franchise awarded by the American Football League. The Club was incorporated in Massachusetts in March 1960, and was authorized to issue 100,000 shares of Class A common stock and 150,000 shares of common stock. Both classes of stock had a $1 par value and were identical in every respect except that only the Class A stock carried voting rights. Mr. Sullivan, Jr. and nine other prominent New England businessmen each purchased 10,000 shares of the Class A stock for $2.50 per share.

As described in the prospectus (see Exhibit 2), the Patriots offered 120,000 shares of nonvoting common stock to the public at $5 per share. The Patriots hoped that this public stock offering would stimulate interest in the Patriots' football team and would also broaden their financial base. The underwriters of the stock anticipated that the entire issue would be sold immediately and that the remaining 30,000 shares of authorized common stock would not be offered for public sale.

Relative to the cost of obtaining the League franchise, the prospectus stated that, "The Patriots paid the American Football League $25,000 for the Boston franchise (the right to play football in the American League) which can be held by the company for the purpose of conducting a professional football business, or can be sold by the company to another person or group of persons at any agreed-upon price. However, any proposed transfer of franchise must be approved by an 80 per cent vote of the League members. In addition to the original payment, the League will receive an annual membership charge of $1,000 from each team and 3 per cent of the gross gate receipts from each preseason and regular season League game. The League will also receive 15 per cent of the gross receipts from the postseason championship game. If the League requires additional funds to meet its expenses, each team may be assessed equally to meet any such deficit."

The Patriots signed Edward McKeever as general manager under a one-year contract for a $20,000 annual salary. Mr. McKeever had been the head coach at Notre Dame, Cornell, and the University of San Francisco, and more recently had been engaged in public relations work. He stated his business philosophy very simply by saying, "Winning football games is not the most important thing in this business, *it's every-*

thing! It's not enough to just put on a good show, you have to give the public victories so they can say, 'That's my team—they are at the top—nothing but the best,' and I think our team can do it." He went on to say that several of the Patriots' players had outstanding records, for example, Tommy Greene of Holy Cross, a very capable quarterback, Butch Songin, a former first team National League player and highly regarded passer, and Jim Colclough of Boston College.

ANTICIPATED OPERATING EXPENSES FOR THE BOSTON PATRIOTS

The prospectus included a "Statement of Assets and Unrecovered Promotional Costs" and a "Statement of Cash Receipts and Disbursements" from the date of incorporation through June 30, 1960. These statements are reproduced in Exhibit 3 and Column 1 of Exhibit 4.

In addition to these expense figures, Mr. Dolan was able to obtain certain additional expense information from conversations he had with the management of the Patriots. (Columns 2 and 3 of Exhibit 4 summarize this information.)

PLAYERS' TRAVEL ADVANCES, SALARY ADVANCES, AND BONUSES

The Patriots started preseason training with a squad of 100 players which was to be gradually reduced to the League maximum of 33 players by the start of the regular 1960 season. Players were acquired by means of a draft system wherein the American League bid against the National League for players. In order to induce a player to sign up with the Patriots, he might be offered a "bonus" payment in addition to any salary he might receive. The bonus was paid to him at the time he showed up for practice and was his, even if he was later released by the team.

The Patriots paid out $27,975 in bonuses to the 100 players who showed up for practice. The three top bonuses were $7,500, $6,000, and $4,900, respectively. Each of these three players was signed to a two-year contract with an option to renew his contract for additional periods at a salary of not less than 90 per cent of the original salary contract amount. All other players were signed to one-year contracts with options to renew at not less than 100 per cent of the original contract amount. The contracts of the top three bonus players contained nonrelease clauses binding on the club. The other 97 players could be released (dismissed) by the team manager, thus relieving the club from the responsibility of honoring the salary contracts.

In addition to the bonus payments, salary and travel advances of $10,508 were made to 28 of the original 100 players. These advances were to be deducted from future salary payments and were not considered as bonuses. However, by August 1960, 9 of these 28 players had already been released and it was doubtful that their advances amounting to $4,318 would be recovered.

SALARIES AND WAGES

As noted in the prospectus, Mr. McKeever received a one-year contract for $20,000 and Lou Saban, head coach of the Patriots, signed a three-year contract for an aggregate payment of $50,000. If, for any reason, Mr. Saban was relieved of this position before his three-year contract expired, he was still to receive the $50,000 contract amount. Mr. Sullivan received $25,000 for services rendered through the end of 1960 and had accepted a salary of $20,000 for the season. Mr. McKeever commented that $15,000 (as shown in Exhibit 4) of Mr. Sullivan's 1960 salary was remuneration for expenses he incurred in obtaining the League franchise, $5,000 was payment for the time he spent in organizing the team, obtaining its financial backing, and scouting for prospective football players, and the remaining $5,000 was his salary as president for 1960.

Administrative and office salaries, in addition to those of Mr. McKeever and Mr. Sullivan, were expected to total $46,500 annually, and coaching salaries over and above Mr. Saban's were anticipated at $42,000 annually.

No salaries were paid to any players during preseason training, but the contracted salary amounts were to be paid to each of the retained 33 players during the regular season. The players' salaries ranged from $7,000 to $15,000, with an average salary of $8,760. The salary contract provided that each player was to receive $\frac{1}{14}$ of 75 per cent of his contracted salary at the end of each game and the final 25 per cent at the completion of the season.

OFFICE EXPENSE

The Patriots leased office space at 520 Commonwealth Avenue, Boston, to be used for ticket sales and as their administrative headquarters. They signed a three-year lease on the space for $750 a month and made certain improvements and changes to the building. They repartitioned the interior space, remodeled and added to the front of the building, painted inside and out, and added certain plumbing facilities. These improvements were expected to cost a total of $4,600, of which $2,850 had been paid to the contractor prior to June 30, 1960. The physical life of the improvements was estimated at 15 years.

Desks, filing cabinets, typewriters, adding machines, and other office equipment costing $4,055 were purchased for use by the office staff. The estimated life of all the equipment was five years, with an estimated scrap value of approximately 10 per cent of original cost.

A 1960 Chevrolet was obtained under a one-year lease from a local automobile dealer. The annual rental under this lease was $1, and the annual operating and maintenance expense for the car was expected to amount to $750.

ADVERTISING AND PROMOTION EXPENSE

The cost of scouting for new players, including entertainment of prospective players, dining with college coaches, and complimentary travel passes to Boston, amounted to $22,300 for the 1960 season and was not expected to change materially in succeeding years. This amount included the cost of entertaining the press, state dignitaries, and other V.I.P.'s.

The cost of promotional leaflets, game schedules, photos, newspaper advertising, publicity letters, handouts, and various other types of promotional devices had amounted to $9,795.17 by June 30, 1960. Mr. Moore, director of public relations, stated that this amount represented 75 per cent of the annual amount he had budgeted for this purpose. He further commented that approximately $4,800 of this budgeted figure was the anticipated cost of 35,000 programs to be sold at the season games. Mr. Moore's annual salary of $7,500 was included in the figure for administrative and office salaries, noted earlier.

COST OF PROFESSIONAL SERVICES AND INSURANCE

The prospectus stated that, "The corporation has agreed to indemnify Boston University against certain liabilities which may be assessed against it as a result of the use of its field by the Patriots, but not in excess of $150,000. The Patriots have agreed to deposit $50,000 cash in a trust account which will then be used as security for this indemnity agreement." Mr. Sullivan stated that he was unable to estimate the possible liability under this agreement, and no policy could be obtained to insure against this liability. Only the maximum limit was certain.

The corporation posted a surety company performance bond for $100,000 with the League to guarantee that the Patriots would field a team and play each scheduled game during the season. This performance bond cost the Patriots $2,000.

Liability insurance for protection against lawsuits brought about by injury to either players or spectators at games was purchased by the Patriots at a total cost of $22,000. This amount provided for a three-year contract that required annual payments of $10,000, $7,000, and $5,000, respectively, during the first three years. The coverage provided under this contract was deemed sufficient to cover any liability incurred by the Patriots. The contract provided for equal coverage during each of the three years.

A certified public accountant was engaged to design the system of accounts and to prepare interim financial statements for the Patriots. His fee for installing the accounting system was $750 and his annual retainer, for preparation of financial reports, was set at $1,000. A legal advisor was retained at a cost of $500 per month on March 1, 1960.

The CPA commented that some amount would have to be set up as organization expense and amortized over a period of time of not less than 60 months as set forth in Section 248 of the Internal Revenue Code. It was his feeling that the entire SEC registration expense of $21,000, and some portion of the accounting and legal fees, should be capitalized since these were costs associated with establishing the company, not costs of current operation. However, the Patriots' management felt that since these were out-of-pocket costs, they should be charged off against current operations. The legal advisor stated that it was common practice in most new business enterprises to capitalize some minimum amount, say $500, and expense everything else. He said that this would be advantageous in the light of corporate income taxes.

STADIUM EXPENSE

The Patriots contracted to use Boston University's football field for all home games on a rent-free basis. However, they agreed to make certain improvements to the field and bear one-half the cost of such improvements themselves as well as to maintain the field in good playing condition. They agreed to bring the seating capacity up to 25,000, install adequate lighting facilities for night games, build and equip press, radio, and television broadcasting boxes, and make certain other improvements to the field. The anticipated total cost of such expenditures was $400,000.

The lease contract with Boston University provided that the Patriots could use the field for the 1960 and 1961 seasons with an additional two-year renewal option available at that time, with no further improvements required under such contract. Mr. McKeever pointed out that a group of private individuals was considering the construction of a $25 million sports stadium with a retractable metal dome, an attached hotel, swimming pool, and nightclub, adequate parking facilities, and with a capacity well over 50,000. He estimated that if this group decided to build such a stadium, it would be completed by June 1962. In view of the limited capacity, inadequate parking facilities, and other temporary arrangements of their present home field, the Patriot's management welcomed the construction plans for such a stadium and offered to lease it, when and if built, for $100,000 per year.

TRAINING CAMP EXPENSES

The cost of the football training camp for the 1960 season was estimated at $55,000 annually by Mr. Saban. This included the cost of food, lodging, uniforms, and training equipment at the camp.

A contract, signed with the University of Massachusetts at Amherst, permitted the Patriots to use the University's field for training purposes in exchange for certain training equipment purchased by the Patriots. This was a one-year contract with an option to renew for two additional years. The equipment given to the University at the end of each playing season consisted of tackling dummies, blocking racks, certain sound equipment, and other smaller pieces of athletic equipment. The equipment cost $8,300 in 1960, but it was anticipated that only $3,800 would be needed, during each of the two succeeding years, to maintain the same amount and quality of training equipment used during 1960, because some of the previous season's equipment could be reused during the following years.

Players' uniforms cost $13,900 for the 1960 season. This amount included the cost of practice uniforms, game uniforms, football helmets, kneepads, and shoulderpads. Many of the training uniforms would be worn out at the end of the 1960 season, and the 1960 game uniforms would probably be used as practice uniforms in 1961. The cost of replacing the game uniforms, damaged equipment, and purchasing odd-size uniforms was estimated at $7,400 for each year succeeding 1960.

ANTICIPATED INCOME FOR THE BOSTON PATRIOTS

TELEVISION RIGHTS

The prospectus stated that, "The League entered into a contract in June with the American Broadcasting Company covering the sale of television rights to all 1960-1964 regular season and championship games. The amount to be paid to the League by ABC depends upon the percentage of sponsorship of broadcasts of the games varying from $965,000 at 50 per cent to $2,120,000 at 100 per cent. The Patriots have been informed that, to date, 100 per cent of the broadcasts for 1960 have been sponsored and that at least 50 per cent of the broadcasts anitcipated for the succeeding four years have also been sponsored. Each League team will receive ⅛ of the total television contract payments, payable in equal installments in October, November, December, and January. Under the contract, ABC must pay 10, 5, 10, 5 per cent over the sponsorship amounts ($965,000 at 50 per cent and $2,120,000 at 100 per cent) called for the preceding year during the period 1961-1964. Home games will not be televised in New England but at least three of the Patriots' away games will be televised in this region."

RADIO RIGHTS

The Patriots arranged to have all their home and away, exhibition and regular season games during the first three seasons broadcast over WEEI. They were to receive $9,000, $10,000, and $11,000 in the years 1960-1962, respectively, for the sale of these radio rights.

CONCESSION RIGHTS

An independent concessionaire agreed to take over the concession operation for the Patriots at their home games. All concession income belonged solely to the home team. The contract specified that the Patriots were to receive 25 per cent of the gross sales of food, novelties, drinks, and pennants as their payment for granting exclusive concession rights to the concessionaire. The contract further guaranteed the Patriots a minimum income of $350 per game if attendance exceeded 5,000 and no income if attendance was less than 5,000. Based on his experience, the concessionaire stated that he anticipated typical concession sales for an attendance of 12,000 would be from $2,200 to $2,800. The closer the attendance at the game approached capacity, the less would be the anticipated dollar purchase per person, he said.

The concessionaire also contracted to sell football programs at the games for a 20 per cent commission. The programs sold for 50 cents each, and the concessionaire anticipated that from 25 per cent to 35 per cent of the attendance at each game would purchase programs.

GATE RECEIPTS

The gate receipts were based upon the attendance at both home and away games and were described in the prospectus as follows: "Under the constitution and bylaws of the League, which bind all teams, the home team guarantees the visiting team $20,000, or 40 per cent, of the net gate receipts, whichever is greater. At the date of this prospectus approximately 1,820 season tickets to the 1960 home games have been sold at

$35 each. Tickets to the home games, all to be played on Friday evening, will sell for an average price of $5 each. At the date of this prospectus, it is impossible to make any estimate of the income from ticket sales."

Boston University Field, where the Patriots were to play all home games, had a capacity of 25,000 seats, comprised of 5,000 end-zone seats at $4 each, 1,500 box seats at $6 each, and 18,500 reserved grandstand seats at $5 each. The Patriots' season schedule of all games was also given in the prospectus (see Exhibit 5).

The Patriots were the sixth professional football team to be established in Boston. The first team was organized in 1926 and the latest one, prior to the Patriots, was attempted in 1944. All these teams failed financially primarily due to a lack of public support. The aggregate total losses of these previous teams was several hundred thousand dollars.

As noted above, the last attempt to establish a professional football team was made in 1944. Mr. Ted Collins, a business manager for Kate Smith and other entertainment personalities, purchased a National League Football franchise for $50,000 and formed the Boston Yanks. During the next five years, the team's record was 14 wins, 38 losses, 3 ties, and a substantial loss for its owner. (Attendance figures for the Boston Yanks are given in Exhibit 6.) Mr. Collins took the team to New York in 1949 and again incurred a loss during the next two years. He sold the franchise to Dallas, Texas, for $100,000 in 1951 and later this team failed. The franchise then went to Baltimore, where the Colts were such a success that the 1960 season tickets were sold out months before the season opened.

Before trying to organize a new team in Boston, Mr. Sullivan had studied the past failures very carefully. In his opinion, the prime reason for past failures had been the lack of public support in the form of attendance which could be attributed to two factors. First, many of the previous teams had failed because they were newly organized with thin financial backing, and had tried to compete in a firmly established league for top-notch players. Since victory was so important to a team's success, the pitting of an inexperienced team against a well-organized, well-balanced club was bound to end in failure unless the team could rapidly establish itself. Likewise, a mediocre team in a newly formed league that offered no outstanding drawing card, either in the form of a well-known player or a big-name team, had difficulty attracting spectators. Mr. Sullivan felt that, because the Patriots had strong financial backing and because they were able to offer new players a spotlight position, rather than a third- or fourth-team position, they would be able to attract the outstanding players necessary for public support. Second, Mr. Sullivan felt that competition from local college and university teams and from other major sports organizations had affected the attendance at professional football games. In elaboration of this factor, Mr. Sullivan thought that all the teams in the new American Football League would be competing for the public's sports dollar with several other major sports organizations. First, and probably most formidable would be the National Football League composed of the teams listed in Exhibit 1. The National League was a well-established, widely accepted sports organization whose attendance increased more than 50 per cent between 1952 and 1958 and was in excess of 3 million paid attendees in 1959 (or an average of nearly 44,000 attendees as compared with an average of slightly over 25,000 attendees in 1949). Ten of the twelve teams operated well in the black during 1959, and two of the teams had sold all their season tickets for 1960. The National League teams were comprised of many well-established and widely known football personalities such as Johnny Unitas of Baltimore, Charlie Conerly of the New York Giants, and Jimmy Brown of Cleveland. Because most of these football personalities were spoken for and tied by contract to the National League, the American League had been forced to sign predominantly graduating college seniors and some former Canadian professional players who were not as well known as many National League players and thus provided less attraction to the public.

The American League also expected competition from National League games broadcast over TV, because the public had the option of watching American League football live or National League football over TV on Sunday afternoons at most of the away games. Mr. Sullivan also wondered if a National League game broadcast on a Sunday afternoon would affect the attendance at a Friday night American League game in Boston. An average of 10 million homes were reached by National League TV every Sunday, and the 1958 Baltimore-New York game drew a record TV audience of 15 million homes as well as a gate attendance of over 64,000 persons. The 1958 average National League attendance was 42,000 persons per game, with Los Angeles averaging over 74,000 persons at all home games. Exhibit 6 gives each team's average annual attendance for a recent season. The average price of a National League ticket was $4.

The American Football League also faced competition from American and National League baseball games during September and October. Many of these games were to be telecast and could draw attendance away from scheduled football games.

Finally, Mr. Sullivan believed that this new football league would be in competition with local college and university football games all across the country. Many persons felt that, "There is nothing like returning to the old alma mater on a crisp fall afternoon for a rousing good Saturday game of ball," a sentiment expressed by several of Mr. Sullivan's business associates.

Because of these competitive sports activities Mr. Sullivan had scheduled all the Patriots' home games on Friday night in order to avoid conflict with other sports activities. He was confident that the public would accept night football with the same enthusiasm which night baseball had received in Boston.

Required

1. Should Mr. Dolan purchase the common stock of the Patriots offered him by his broker?
2. What accounting policies would you recommend that Mr. McKeever establish for the preparation of financial statements of a publicly owned professional football team?
3. Would you support the argument of the CPA, the Patriots' management, or the legal counselor concerning organization expense? If you would support none of these arguments, what would be your recommendation relative to the organization expense?
4. Prepare financial statements for the 1960 season assuming that total current liabilities as of December 31, 1960, were $11,000. Calculate the balance in the cash account on December 31, 1960, based on information in the case and on the income assumptions you made.
5. Should the same financial statements be used both in assessing the Patriots as an investment opportunity and in reporting to the Patriot's shareholders at the end of the season?
6. Should the Patriots choose a fiscal year ending on a date other than December 31?

EXHIBIT 1

Composition of the American and National Football Leagues

A. American Football League

City	Name	Stadium	Capacity	City Population (thousands)[*]
Eastern Division				
Boston	Patriots	Boston University Field	25,000[†]	3,074.4
Buffalo	Bills	Municipal Stadium	31,000	1,338.3
Houston	Oilers	Jepperson Field	38,000	1,212.0
New York[‡]	Titans	Polo Grounds	55,000	10,628.4
Western Division				
Dallas[‡]	Texans	Cotton Bowl	78,000	1,066.4
Denver	Broncs	Bears Stadium	37,000	895.2
Los Angeles[‡]	Chargers	Coliseum	102,000	6,624.2
Oakland[‡]	Raiders	Kezar Stadium	58,000	2,731.2

B. National Football League

City	Name	Stadium	Capacity	City Population (thousands)[*]
Eastern Division				
Chicago[¶]	Cards		47,000	6,674.5
Cleveland	Browns	Municipal Stadium	78,000	1,785.5
New York	Giants	Yankee Stadium	67,000	10,628.4
Philadelphia	Eagles	Franklin Field	41,000	4,439.1
Pittsburgh	Steelers	Forbes Field	35,000	2,381.5
Washington	Redskins	Griffith Stadium	37,000	2,034.3
Western Division[§]				
Baltimore	Colts	Memorial Stadium	58,000	1,748.0
Chicago	Bears	Wrigley Field	49,000	6,674.5
Detroit	Lions	Briggs Stadium	53,000	3,963.5
Green Bay	Packers	City Stadium	32,000	310.6
Los Angeles	Rams	Memorial Coliseum	102,000	6,624.2
San Francisco	49'ers	Kezar Stadium	58,000	2,731.2

[*] Population of the greater metropolitan area, 1960.

[†] Includes 8,000 seats to be added prior to start of the 1960 season.

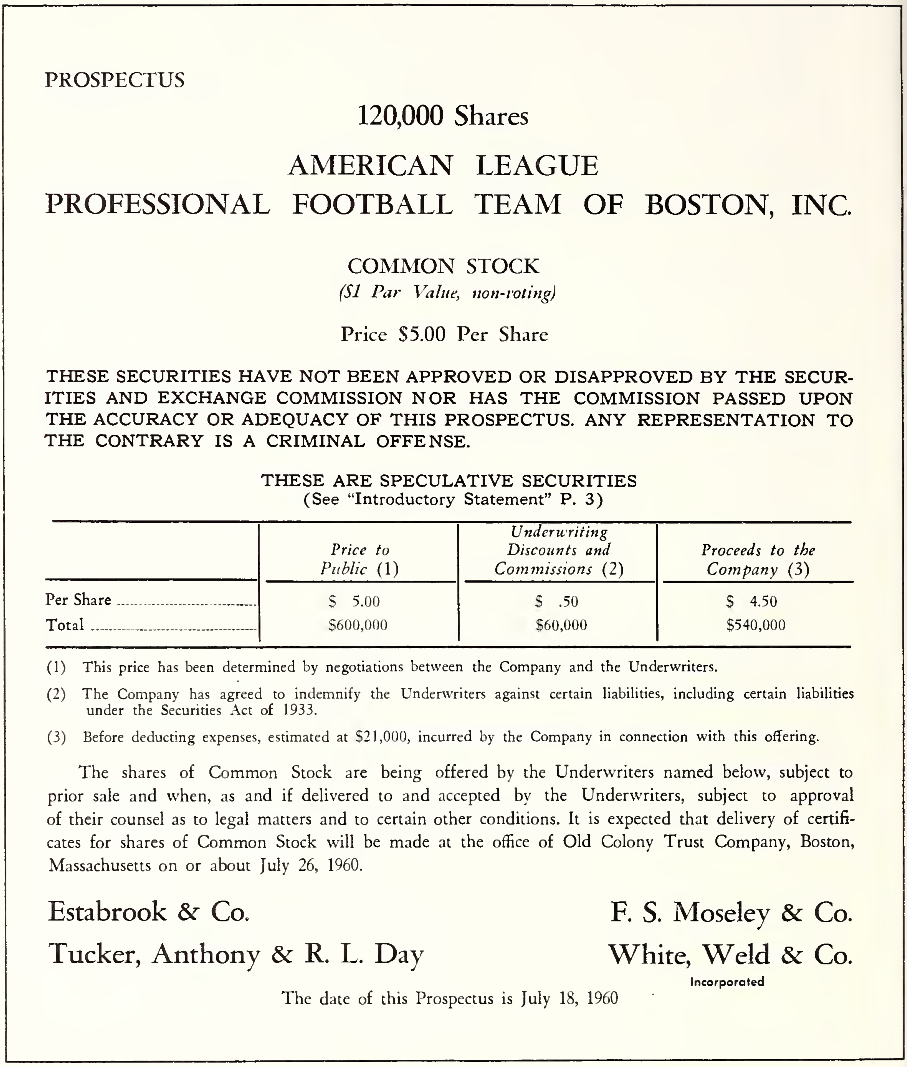
[‡] The National Football League also has teams in these cities.

[¶] The Chicago franchise has been transferred to St. Louis during 1960.

[§] Dallas, Texas, has been granted a National League franchise which becomes effective for the 1960 season.

EXHIBIT 2

Excerpt from Prospectus Offering Patriots' Common Stock



PROSPECTUS

120,000 Shares

AMERICAN LEAGUE PROFESSIONAL FOOTBALL TEAM OF BOSTON, INC.

COMMON STOCK

($1 Par Value, non-voting)

Price $5.00 Per Share

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION NOR HAS THE COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

THESE ARE SPECULATIVE SECURITIES
(See "Introductory Statement" P. 3)

	Price to Public (1)	*Underwriting Discounts and Commissions* (2)	*Proceeds to the Company* (3)
Per Share	$ 5.00	$ .50	$ 4.50
Total	$600,000	$60,000	$540,000

(1) This price has been determined by negotiations between the Company and the Underwriters.

(2) The Company has agreed to indemnify the Underwriters against certain liabilities, including certain liabilities under the Securities Act of 1933.

(3) Before deducting expenses, estimated at $21,000, incurred by the Company in connection with this offering.

The shares of Common Stock are being offered by the Underwriters named below, subject to prior sale and when, as and if delivered to and accepted by the Underwriters, subject to approval of their counsel as to legal matters and to certain other conditions. It is expected that delivery of certificates for shares of Common Stock will be made at the office of Old Colony Trust Company, Boston, Massachusetts on or about July 26, 1960.

Estabrook & Co.	F. S. Moseley & Co.
Tucker, Anthony & R. L. Day	White, Weld & Co. Incorporated

The date of this Prospectus is July 18, 1960

EXHIBIT 3 Balance Sheet, June 30, 1960

Statement of Assets and Unrecovered Promotional Costs

Current Assets:			
Cash		$ 97,546.78	
Stock subscriptions receivable—due June 1, 1960		55,000.00	
Salary advances		10,507.77	
Deposit receivable		425.00	
Total current assets			$163,479.55
Other Assets and Unrecovered Promotional Costs:			
Leasehold improvements—at cost office and stadium		$ 4,589.00	
Furniture and fixtures—at cost		4,054.90	
League franchise fee		25,000.00	
Unrecovered promotional costs:			
General administrative expenses	$63,405.05		
Bonuses paid to players	27,975.00		
Other expenses	25,234.86	116,614.91	
Prepaid expenses		3,692.77	
Total other assets and unrecovered promotional costs			153,951.58
Total assets and unrecovered promotional costs			$317,431.13

Statement of Liabilities and Capital Shares

Current Liabilities:		
Accounts payable	$ 1,000.00	
Accrued liabilities	576.14	
Other current liabilities	1,959.99	
Total current liabilities		$ 3,536.13
Deferred income—advance sale of tickets		63,895.00
Total liabilities		$ 67,431.13
Capital Stock:		
Nonvoting common stock ($1 par value)		
150,000 shares authorized		
No. shares outstanding	None	
Class A common stock ($1 par value)		
100,000 shares authorized		
No. shares issued for cash (78,000)	$195,000	
No. shares subscribed to and to be issued June 1, 1960 (22,000)	55,000	
Total capital stock		250,000.00
Total liabilities and capital stock		$317,431.13

EXHIBIT 4

Statement of Receipts and Disbursements and Anticipated Operating Expenses for the Boston Patriots

	(1) Cumulative Statement of Cash Receipts to Disbursements From Inception to June 30, 1960	(2) Total Expenses Anticipated for First Annual Season (Inception to Dec. 31, 1960)	(3) Recurring Annual Expenses Anticipated in Seasons Subsequent to the 1960 Season
Receipts			
Sale of 78,000 shares of Class A floating stock	$195,000.00	-	-
Advance sale of tickets	63,895.00	-	-
Total Receipts	$258,895.00		
Disbursements:			
Airline deposit	$ 425.00	$ 425.00	-0-
League franchise fee	$ 25,000.00	25,000.00	-0-
Office construction payments	2,850.00	4,600.00	-0-
Stadium construction payments	1,739.00	200,000.00	-0-
Furniture and fixtures	4,055.00	4,055.00	-0-
Bonuses to players	27,975.00	27,975.00	*
Salary advance to players	10,508.00	10,508.00	11,000.00
Annual league membership fee	1,000.00	1,000.00	1,000.00
Salaries of directors and officers—to Mr. Sullivan	15,000.00	25,000.00	20,000.00
Other Salaries and wages—office and coaching	31,208.60	88,500.00	88,500.00
Office rent	3,276.00	7,776.00	9,000.00
Telephone and telegraph	3,304.66	7,600.00	7,600.00
Hotel, travel, functions and scouting expenses	12,277.80	22,300.00	22,300.00
Professional services—legal and accounting	3,750.00	6,750.00	7,000.00
Advertising and promotional expenses	9,795.17	13,000.00	13,000.00
Office supplies and expense	5,798.70	6,300.00	5,300.00
Insurance performance bond	2,000.00	2,000.00	-0-
Payroll tax expense	686.70	12,000.00	12,000.00
Player's uniforms	698.59	13,900.00	7,400.00
Total Disbursements to June 30, 1960	$161,348.22		
Cash Balance as of June 30, 1960	$ 97,546.78		
Mr. McKeever's annual salary		20,000.00	20,000.00
Mr. Saban's annual sallary		16,667.00	16,667.00
Player's salaries		289,080.00	297,000.00
Automobile expense		751.00	751.00
Trust account under B.U. indemnity agreement		50,000.00	*
Liability insurance		22,000.00	*
Surgical and Hospitalization Insurance		25,000.00	25,000.00
Annual stadium maintenance expense		25,000.00	25,000.00
Training Equipment		8,300.00	3,800.00
Food and lodging at training camp		32,800.00	32,800.00
Travel Expenses while team is on the road		57,500.00	57,500.00
Total Anticipated Annual Disbursements		$1,025,787.00	$682,618.00 +

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*Uncertain or variable over a period of time (see text).

EXHIBIT 5

1960 Boston Patriots' Season Schedule with Indication of Competitive Local Area Sports Activities

	Date	Team		Competitive Football Activity Anticipated During Indicated Weekend[*] [†]
Friday	September 9	Denver	(at Boston)[‡]	
Sunday	September 18	New York	(at New York)	
Friday	September 23	Buffalo	(at Boston)	Harvard vs. Holy Cross—$4.00[¶]
Sunday	October 9	Los Angeles	(at Los Angeles)	
Sunday	October 16	Oakland	(at Oakland)	
Sunday	October 23	Denver	(at Denver)	
Friday	October 28	Los Angeles	(at Boston)	Harvard vs. Pennsylvania—$4.00 and B.U. vs. Univ. of Mass[§]
Friday	November 4	Oakland	(at Boston)	
Friday	November 11	New York	(at Boston)	Harvard vs. Brown—$4.00 and B.U. vs. Boston College—$3.00
Friday	November 18	Dallas	(at Boston)	Harvard vs. Yale—$6.00
Friday	November 25	Houston	(at Boston)	
Sunday	December 4	Buffalo	(at Buffalo)	
Sunday	December 11	Dallas	(at Dallas)	
Sunday	December 18	Houston	(at Houston)	

[*] No National League Football Games will be played within 200 miles of the home team's city during the indicated weekend, but televised National League ball games will be broadcast on Sunday of each of the above indicated weekends in the home city. A bill sponsored by Senator Kefauver is currently under consideration and if passed would eliminate this competitive telecasting.

[†] In addition to the indicated football games, professional baseball games will be played during all weekends until the middle of October.

[‡] All home games are played on Friday nights at 8:00 p.m. at Boston University Field.

[¶] Harvard University has averaged 18,033 attendance per game during the past five years, with a low in 1959 of 16,240 and a high of 22,454 in 1956. Approximately 20% of this attendance could be accounted for by free student admission and by complimentary passes. Harvard's record was 18 wins, 23 losses, and 1 tie during this 5-year period. The average ticket price is $4, but all tickets to the popular Yale game sell for $6.

[§] Boston University (B.U.) has averaged 12,000 attendance per game during the past five years, with a low in 1955 of 10,000 and a high of 14,200 in 1959. Approximately 70% of this attendance is "paid" attendance. B.U.'s record was 17 wins, 23 losses, and 2 ties during this 5-year period. Sideline tickets sell at $3 each.

EXHIBIT 6

National Football League Home Attendance for a Recent Season

	Home Games	Total	Avg./Game	Capacity
Los Angeles	6	445,776	74,296	101,000
San Francisco	6	337,980	56,330	60,000
Detroit	6	334,458	55,743	53,000
Cleveland	6	324,165	54,028	78,000
New York	6	290,667	48,443	67,000
Baltimore	6	279,888	46,648	53,000
Chicago Bears	6	269,114	44,852	49,000
Pittsburgh	6	168,957	28,160	35,000
Green Bay	6	161,103	26,851	32,000
Washington	6	157,997	26,333	37,000
Philadelphia	6	129,654	21,609	41,000
Chicago Cubs	5	126,272	25,254	47,000

Source: National Football League Record and Rules Manual and Mr. Joseph T. Labrum, Assistant to the Commissioner, The National Football League.

The Boston Yanks Attendance Record for Selected Years

1945 Season

Games and Score				Weather	Attendance	Site
Yanks	28	Steelers	7	Good	27,502	Boston
Yanks	28	Redskins	20	Rain	21,333	Boston
Yanks*	13	Giants	13	Rain	30,988	New York
Yanks	14	Packers	38	Rain	17,877	Milwaukee
Yanks	10	Steelers	6	Good	21,596	Pittsburgh
Yanks	9	Lions	10	Snow	12,582	Boston
Yanks	7	Redskins	34	Good	33,418	Washington
Yanks	0	Packers	28	Rain	31,923	Boston
Yanks	7	Rams	20	Cold	17,315	Cleveland
Yanks	7	Eagles	35	Good	24,622	Philadelphia

1948 Season

Games and Score				Attendance	Site	Date
Yanks	0	Packers	31	15,443	Boston	September 17
Yanks	7	Giants	27	7,428	Boston	September 23
Yanks	14	Steelers	23	26,216	Pittsburgh	October 3
Yanks	17	Lions	14	22,609	Detroit	October 9
Yanks	13	Steelers	7	7,208	Boston	October 17
Yanks	27	Cardinals	49	23,423	Chicago	October 24
Yanks	21	Redskins	59	29,789	Washington	October 31
Yanks	7	Redskins	23	13,659	Boston	November 7
Yanks	0	Eagles	45	22,958	Philadelphia	November 14
Yanks	17	Bears	51	18,048	Boston	November 21
Yanks	14	Giants	28	19,636	New York	November 28
Yanks	37	Eagles	14	9,658	Boston	December 5

*Yanks home game played in New York.
Source: Boston Globe Sports' Department files.

CASE 46

Adamian Metallurgical Corporation

In October 1958, Mr. Peter Adamian, president of Adamian Metallurgical Corporation, was engaged in a re-examination of the methods used in setting prices for the services sold by his company. Adamian Metallurgical Corporation (AMC) was a commercial heat-treating company located in Birmingham, Alabama. The company offered a variety of heat-treating services, such as carburizing, hardening, tempering, and brazing, to local metalworking companies and machine shops.

Mr. Adamian had founded AMC in 1946 after being released from the Army. He had taken a degree in metallurgy in 1934 and had worked for several years for a commercial heat-treating company before the war. Between 1946 and 1954, AMC had experienced a steady growth in sales volume and profits; after 1954, sales volume had been relatively stable. A balance sheet as of July 31, 1958, and income and surplus statements for the fiscal year then ended are presented in Exhibits 1, 2, and 3. Condensed income statements for the years 1949-1957 are shown in Exhibit 4.

HISTORY OF COMMERCIAL HEAT-TREATING

Heat-treating is a process whereby the physical properties of a metal may be changed by subjecting it to heat. Typically, heat-treating is done for one of two purposes: (1) Hardening the surface of the metal to improve its wearing qualities, or (2) annealing the metal to improve its further workability by removing molecular stresses and strains created by prior metal-forming operations. Another heat-treating operation called brazing is a process whereby two pieces of metal are joined together by applying a compound (analogous to glue) to the two pieces and heating them until the compound "flows" to join the two surfaces. AMC was engaged primarily in the hardening and brazing processes.

Prior to World War II, steel was hardened principally by inducing carbon into the surface. This "carburizing" process was one of the earliest heat-treating methods and was a relatively simple process: The parts to be hardened were covered with a carburizing compound, put in a furnace for several hours and removed when enough of the carbon had been driven by the heat into the steel to harden it. With the development of specialty steels during the war, and the improvement in cutting tools and other technological advances, a wider variety of heat-treating methods was necessary. In 1958, AMC had six different furnaces and offered a fairly complete range of hardening and brazing capabilities.

1. The box furnace was a fire-brick, box-shaped gas furnace used for carburizing.
2. The hardening furnace and tempering furnaces were continuous-operation gas furnaces. Trays of metal parts were pushed into one end of the hardening furnace and, after maximum hardness was attained, pushed out the other end and quenched. The parts were then pushed through the tempering furnace where, at somewhat lower temperatures, the brittleness of the metal caused by the hardening operation was modified. The final result was a hardened part with good tensile strength. These two furnaces were always used together, and were regarded as a single process. One hour of furnace time in this process was defined as one hour in each furnace.
3. The salt pot furnace was another hardening process in which the furnace was in continuous operation. Parts to be hardened were immersed in a hot brine solution until the desired toughening result was achieved.
4. The Hayes furnace was a small, versatile, continuous electrical furnace that would do both hardening and brazing operations.
5. The brazing furnace was an electrical, continuous furnace used exclusively for brazing operations.
6. The induction furnace was another hardening furnace using a relatively new specialized process on the batch method. This furnace had been acquired in 1956, and was rapidly gaining acceptance. Operations of this furnace were not profitable during 1957, but Mr. Adamian felt that after a "shakedown period," the induction furnace would be a profitable addition to his line.

Each of these furnaces was relatively independent of the other furnaces in its operation, that is, a part processed in one furnace would not normally go through another furnace. The main exception to this procedure was that occasionally a part would be carburized in the box furnace prior to hardening in another furnace.

COMPETITION AND PRICING PROCEDURES

AMC was one of four commercial heat-treaters operating in Birmingham. One of these companies was several times the size of AMC, the other two were slightly smaller than AMC.

An indirect source of competition was manufacturers of metal products who did heat-treating of their own products in their own plants. Commonly, this was done whenever the volume of work was large enough to support installation of a furnace, thus limiting commercial heat-treaters to essentially small-volume customers. Large manufacturers occasionally used a commercial heat-treater when the manufacturer's volume was too great for his own furnace capacity, or when a specialized type of process was required which the manufacturer's equipment could not handle.

In 1958, AMC's volume of $165,041 was the result of 10,414 invoices representing individual customer orders. The average size of an order was thus $15.85. Mr. Adamian pointed out that the minimum price for any order was $2.50, and he estimated that 80 per cent of the total orders were for small dollar amounts between $2.50 and $6.00. The remaining orders included some big jobs running up to $300, thus raising the average order size to $15.85.

Typically, Mr. Adamian said, a customer would bring in parts to be processed and expect to pick up the completed work within three days. The Hayes and induction furnaces were usually operated on a two-shift basis, and the other furnaces were operated twenty-four hours a day. The plant worked a five-day week. On a rush basis, jobs could be handled in one day and many jobs were completed in two days. Actual processing time for a job varied as a result of the technical specifications to be met; a typical small order being processed through the hardening and tempering furnace might require one "furnace hour." Small orders processed in one of the continuous furnaces did not require the full capacity of a furnace at any time. When technical specifications permitted, several small orders might be in one furnace at the same time.

Because many of his customers were job-order machine shops and small metalworking companies, Mr. Adamian explained that it was almost impossible for AMC to schedule its work load even one day in advance. AMC had several hundred customers, each with a small volume of heat-treating requirements, and the customers could not predict when they would need work done. Mr. Adamian stressed the importance of customer service in maintaining his business. On an initial order, a customer might ask for a bid before placing his order with AMC. If the price on that order was acceptable, and the quality and service delivered were good, Mr. Adamian said the customer might become a steady source of business with no future questions about price on later orders.

One of the problems in preparing bids for new customers or in pricing the jobs for established customers was that, when Mr. Adamian was out of the shop, the pricing might be done by either the plant superintendent or the shop foreman. Since these two men, as well as Mr. Adamian, had slightly different methods of estimating costs, the price that one man might quote for a job frequently varied from the price quoted for an identical job by one of the other officials. Mr. Adamian pointed out that this occasionally resulted in a request from a customer for clarification on exactly what the price was for a given type of work.

With these operating and customer characteristics in the heat-treating industry, Mr. Adamian said it was very difficult to find an equitable basis for pricing the jobs of steady customers and for preparing bids for prospective orders. One of the primary causes of difficulty was that before World War II, the price for the carburizing process had been fairly well stabilized at $.08 per pound by all the heat-treating companies in Birmingham. After the war, prices had risen with inflation to about $.15 per pound, and this was the price that customers had come to expect as the standard price for heat-treating (hardening) service. The reason the $.15 price was unfortunate, Mr. Adamian said, was that customers expected that this price would cover the heat-treating service they required, regardless of its technical complexity. With the growing variety of processes and increasingly rigid specifications as a result of improved technology, this price was too low to support profitable operations. Nevertheless, Mr. Adamian said, there was great customer resistance to prices quoted above $.15 per pound for hardening as done in the hardening and tempering, Hayes, or salt pot furnaces. Customers had no such preconceived ideas about a proper price for the brazing and induction furnaces, so Mr. Adamian was able to charge a price which he considered adequate to yield a profit.

One of the solutions to the pricing problem considered by Mr. Adamian was to quote prices on a "per part" basis. Mr. Adamian had found that his customers tended to think about their production costs as being "so much per part," and were receptive to having their heat-treating service quoted on that basis. Mr. Adamian saw an advantage in quoting prices this way in that he was able to quote a per-part price that was higher on a "per pound" basis than the $.15 considered as normal. However, he still had the problem of trying to determine what the per-part price should be.

During fiscal year 1958, AMC suffered its first loss in nine years. Mr. Adamian attributed this loss to the recession during that period. "We were able to maintain our volume pretty well, but only by shaving prices to a point apparently below break-even," he said. Recognizing the growing seriousness of his pricing problem in April 1958, Mr. Adamian called in Mr. Richard Showalter, a local management consultant, for assistance.

THE CONSULTANT'S ANALYSIS

In trying to devise a system for cost-based bidding and pricing, Mr. Showalter reasoned that essentially the service that AMC was selling was furnace time. Mr. Adamian said it was easy to make reliable predictions of furnace time for any job because the time required was determined by the technical specifications of the job. Accordingly, Mr. Showalter decided to distribute all costs to the furnaces in order to arrive at a total cost per furnace, which could then be used to determine break-even prices for each type of furnace. The results of this analysis are shown in Exhibit 5.

Mr. Showalter decided to use income and expense data for the calendar year 1957, because he wanted to use the most recent information, and final figures for fiscal year 1958 would not be available for several months. His first step was to obtain sales revenue for each furnace. This data was readily available because all sales invoices were classfiied according to the furnace in which the work had been done. For those few jobs (less than 10 per cent of the total) which had gone through more than one furnace, revenue was allocated between furnaces on a proportional basis reflecting historical "cents-per-pound" prices for each furnace.

In distributing costs by furnace, Mr. Showalter knew that many expense items could not be identified with a specific furnace and would have to be allocated on some reasonable basis. He decided to divide non-assignable costs into three categories: shop overhead, selling expenses, and administrative expenses. In Exhibit 6 the components of each category in Exhibit 5 are related back to the listing of operating expenses shown in Exhibit 2.

Also shown in Exhibit 6 is Mr. Showalter's evaluation of each expense item in terms of its variability with changes in the rate of production. He found that the most variable expense was supplies used in the furnaces (salt, brazing paste, carburizing compound, and so on) which varied almost directly with the volume of work procesed. Expenses for repairs and for gas were not directly variable because all the furnaces were usually run every day, although the harder use involved when the furnaces were running full probably did increase gas consumption and necessitate earlier repair work than did running the furnaces partly filled or empty. Similarly, shop direct labor was not completely variable since the same number of attendants were required whether the furnace was completely or partially filled. Further, because customer requirements for processing could not be accurately predicted even one day in advance, AMC usually had the full work force (about fourteen men) report each day and the men worked more or less hard depending upon how much work was available. Commenting on this problem, Mr. Adamian had said, "We don't lay men off as much as we should."

Mr. Showalter found that some expenses, such as consulting fees, entertainment, advertising, and so on, were neither fixed nor variable by the nature of the operations. He classified these expenses as controllable by management decision.

In preparing his cost distribution, Mr. Showalter did not allocate any cost to the sand-blasting operation. This operation was a method used to improve the surface appearance of parts that had been treated in the hardening and tempering furnaces or the salt pot furnace. Because the cost of this operation was small, it was usually not included specifically as a factor when bids were prepared. Therefore the loss shown in Exhibit 4 was due to an underallocation of revenue to this operation, and to adjust for it the loss was split between the two furnaces using sand blasting. Similarly, the box furnace was, in Mr. Adamian's words, "a necessary evil," for which a detailed cost analysis was not necessary. Since the assignable costs and revenue for this furnace were small, Mr. Showalter ignored it in his allocation of selling expenses and administrative expenses.

In order to determine "break-even" revenue rates, Mr. Showalter needed some estimate of the number of hours that each furnace would be utilized during the year. No actual data on the utilization rate were available. As a practical matter, during the five-day work week the furnaces were never allowed to cool completely, although the Hayes and induction furnaces were cut back to a stand-by temperature between midnight and 8 A.M. Most of the other time, all the furnaces were "active" to a greater or lesser extent. Depending on how compatible the different jobs were, a furnace might run completely full or might contain only one job being processed to unusual specifications.

Mr. Showalter asked Mr. Adamian to estimate the average number of *equivalent* hours each day that each furnace would be completely full. Thus, two hours during which the furnace was only 50 per cent full were counted as one equivalent revenue hour. Mr. Adamian's estimates of average equivalent revenue hours per day are shown on Exhibit 5.

THE BEAUREGARD TOOL WORKS JOB

Mr. Adamian had still not resolved his pricing policy by October 1958, when he was contacted by Mr. A. L. Hickory, president of Beauregard

Tool Works. Mr. Hickory's company operated four automatic screw machines on a job-order basis in a barn behind Mr. Hickory's home. Mr. Hickory explained that he was dissatisfied with the heat-treating service he had been receiving from one of AMC's competitors, and would like Mr. Adamian to bid on a job that Beauregard was working on. The job involved 1,000 small parts, weighing in total 40 pounds. Mr. Adamian's usual practice was to quote a price immediately, but in this case, realizing that the job might develop a lot of repeat business, he asked Mr. Hickory to give him a day or so to work up a good price on this job that could be used as a pattern for future prices on similar jobs for Beauregard.

Considering the Beauregard job after Mr. Hickory left, Mr. Adamian knew that the "standard" bid should be $6, based on 40 pounds at $.15 per pound. He knew it would take about an hour to run the job through the hardening and tempering furnaces, indicating a cost of $7.55, to which some allowance for profit should be added. However, this job would probably require only 60 per cent of the furnace capacity while going through, so that if the remaining capacity could be sold, a lower price might be justifiable. Finally, Mr. Adamian recognized this job as a good opportunity to quote a price of one cent per part, thus getting $10 of revenue if the bid were accepted.

Required

1. What price should Mr. Adamian bid on the Beauregard job?
2. For the purpose of making bids and setting prices in the future, should Mr. Adamian figure his costs on a per pound, per part, or per furnace-hour basis, or on some other basis, if at all?

EXHIBIT 1 Balance Sheet, July 31, 1958

Assets

Current Assets:				
Cash			$ 164.34	
Accounts receivable			28,687.04	
Notes receivable			6,752.85	
Work-in-process inventory			340.00	
Supplies inventory			2,055.69	$37,999.92
Investments:				9,576.00
Fixed Assets:	Cost	Reserve	Net Value	
Equipment	$50,504.27	$25,510.03	$24,994.24	
Office equipment	1,262.29	548.79	713.50	
Trucks	8,836.46	1,627.14	7,209.32	
Totals	$60,603.02	$27,685.96		32,917.06
Prepaid Expenses:				1,760.44
Other Assets—Treasury stock (34 shares)				3,400.00
Total Assets				$85,653.42

Liabilities and Net Worth

Current Liabilities:		
Accounts payable	$ 3,139.20	
Notes payable	8,381.90	
Accrued expenses	4,404.92	$15,926.02
Long-term Liabilities:		
Notes payable		8,681.87
Total liabilities		$24,607.89
Net Worth:		
Capital stock (250 shares issued)	$25,000.00	
Surplus (Exhibit 3)	36,045.53	
Total net worth		61,045.53
Total liabilities and net worth		$85,653.42

EXHIBIT 2

Income and Expense Statement for the Fiscal Year Ended July 31, 1958

	Amounts		Per Cent of Sales	
Income:				
General sales		$165,041.52		89.00%
Service sales		20,407.02		11.00
Total sales		$185,448.54		100.00%
Deduct: Sales discount	$ 1,067.78		0.58%	
Breakage of customer parts	1,803.01	2,870.79	0.97	1.55
		$182,577.75		98.45%
Deduct: Service purchases		11,405.39		6.15
Gross income		$171,172.36		92.30%
Operating Expense:				
Plant expense: Shop labor	$66,845.58		36.05%	
Supplies	10,006.21		5.40	
Gas	6,140.30		3.31	
Power & light	10,521.02		5.67	
Water	389.75		0.21	
Rent	6,099.96		3.29	
Laundry	684.07		0.37	
Truck expense	5,609.35	$106,296.24	3.02	57.32%
Administrative expense: Exec. salary	$11,500.00		6.20%	
Office salaries	8,819.94		4.76	
Office supplies	1,760.42		0.95	
Telephone & telegraph	1,791.60		0.97	
Consulting fees	785.00		0.42	
Audit & tax service	187.50		0.10	
Travel & entertainment	6,508.51		3.51	
Sales salary	7,833.27		4.22	
Sales expense	1,747.06	40,933.30	0.94	22.07
General expense: Property taxes	$ 1,155.59		0.62%	
Payroll taxes	1,769.38		0.95	
Insurance	4,340.66		2.34	
Repairs	7,097.17		3.83	
Depreciation	6,954.72		3.75	
Interest expense	525.52		0.28	
Advertising	5,044.72		2.72	
Bank charges	11.20		0.01	
Miscellaneous	1,991.98	28,890.94	1.08	15.58
Total operating expense		$176,120.48		94.97%
Net operating loss		$ (4,948.12)		(2.67%)
Other income: Subleasing part of building	$ 2,606.37		1.41%	
Other expense: Accts. receivable charged off	361.33	2,245.04	.91	1.22
Net loss		$ (2,703.08)		(1.45%)

EXHIBIT 3 Statement of Earned Surplus as of July 31, 1958

Balance, August 1, 1957		$43,151.06
Deductions:		
Key man insurance	$1,852.00	
Health and accident insurance	390.45	
Cash dividend	2,160.00	4,402.45
		$38,748.61
Deduct: Net loss for year (Exhibit 2)		2,703.08
Balance, July 31, 1958 (to Exhibit 1)		$36,045.53

EXHIBIT 4 Condensed Income Statements, 1949-1957

Fiscal Year	Sales	Expenses: Operating	Expenses: Administrative	Expenses: General	Net Operating Income Before Taxes
1957	$180,441	$103,569	$37,874	$29,874	$ 9,523
1956	165,628	94,543	30,688	30,854	9,543
1955	130,078	79,867	25,291	23,748	1,172
1954	173,063	91,846	34,999	29,825	16,393*
1953	156,082	89,112	27,147	22,671	17,152
1952	Not available				
1951	99,908	56,839	10,744	15,359	16,966
1950	47,546	31,195	5,983	10,212	156
1949	54,787	38,738	6,580	11,450	(1,981)

*Dividends of $1,250 were paid in February 1954.

EXHIBIT 5 Computation of Break-even Prices by Type of Furnace, Calendar Year 1957

	Total	Hardening & Tempering	Brazing	Hayes	Induction	Salt Pots	Box	Sand Blasting
Sales	$173,027	$33,272	$53,135	$22,783	$14,453	$40,913	$8,040	$431
Assignable shop expenses:								
Labor	$ 51,745	9,973	$ 7,990	$ 9,553	$10,602	$10,936	2,691	-
Supplies	7,545	335	2,065	865	600	2,857	288	$525
Gas	5,945	960	960	480	-	2,400	1,145	-
Power and light	9,576	2,124	4,266	2,124	1,062	-	-	-
Repairs	6,324	170	3,255	1,766	781	158	194	-
Depreciation	4,460	525	650	1,230	1,198	744	-	113
Payroll tax, etc.	2,500	500	400	450	500	500	150	-
Total assignable	$ 88,095	$14,587	$19,586	$16,478	$14,743	$17,595	$4,468	$638
Profit after assigned expenses	$ 84,932	$18,685	$33,549	$ 6,305	$ (290)	$23,318	$3,572	($207)
Shop overhead—distributed on basis of direct labor cost	$ 20,988	$ 4,045	$ 3,241	$ 3,875	$ 4,300	$ 4,436	$1,091	-
Sand blasting loss—split between hard & temp. and salt pots	-	$ 104				$ 103		($207)
Selling expense—distributed on basis of sales for all furnaces except box furnace	$ 35,978	$ 7,275	$11,617	$ 4,981	$ 3,160	$ 8,945	-	-
Administrative expense—distributed equally except none to box	$ 31,913	$ 6,383	$ 6,383	$ 6,383	$ 6,382	$ 6,382	-	-
Total expenses	$ 88,879	$ 17,807	$21,241	$15,239	$13,842	$19,866	$1,091	($207)
Net profit or (loss) before taxes	($ 3,947)	$ 878	$12,308	($ 8,934)	($14,132)	$ 3,452	$2,481	-0-
Revenue required to break even (Sales plus loss or minus profit)		$32,394	$40,827	$31,717	$28,585	$37,461		
Estimated equivalent revenue hours								
per day		16 1/2	15	9 1/2	8	16 1/2		
per year (260 days)		4,290	3,900	2,470	2,080	4,290		
Break-even revenue rate per hour (required ÷ hours) rounded		$ 7.55	$10.45	$12.85	$13.75	$ 8.75		

EXHIBIT 6

Relationship Between Income Statement and Consultant's Cost Analysis

Cost Category Used in Exhibit 5	Operating Expenses Listed in Exhibit 2	Cost Variability Rating
Assignable:	Shop labor (direct laborers)	Partly variable
	Supplies (approximately 75% of total supplies)	Variable
	Gas	Partly variable
	Power and light	Partly variable
	Repairs (approximately 60% of total repairs)	Partly variable
	Depreciation on furnaces	Fixed
Shop Overhead:	Shop labor (supervision)	Fixed
	Supplies (remainder not directly assignable)	Fixed
	Water	Fixed
	Laundry	Fixed
	Insurance on building contents	Fixed
	Repairs (remainder not directly assignable)	Fixed
	Miscellaneous	Fixed
	Breakage of customer parts	Unpredictable
Selling Expense:	Shop labor (truck driver)	Fixed
	Truck operating expenses	Partly variable
	Travel and entertainment	Controllable
	Sales salary	Fixed
	Sales expense	Fixed
	Insurance on car and truck	Fixed
	Depreciation on car and truck	Fixed
	Advertising	Controllable
Administrative Expense:	Rent	Fixed
	Executive salary	Fixed
	Office salaries	Fixed
	Office supplies	Fixed
	Telephone and telegraph	Fixed
	Consulting fees	Controllable
	Audit and tax service	Fixed
	Taxes—property	Fixed
	Insurance—business interruption	Fixed
	Depreciation on office equipment	Fixed
	Interest expense	Fixed
	Bank charges	Fixed
	Key man insurance (charged directly to surplus)	Fixed

Note: Payroll taxes, which were directly variable with wages and salaries paid, were assigned to each of the four categories on the basis of a percentage of wages and salaries expense.

CASE 47

Microflex, Inc.

In February 1960, Mr. Donald Sears, the recently elected president of Microflex, Inc., decided to seek outside aid in solving the company's problem of rapidly declining profits. Microflex was located in Beverly Hills, California. After making some inquiries among his friends in the business community, Mr. Sears decided to contact Mr. S. T. Glickman, a Professor of Business Administration at a near-by campus of the University of California. Mr. Sears' letter to Mr. Glickman is quoted in part below.

> Dear Professor Glickman:
>
> My friends at the First Security National Bank have suggested that you might be helpful to us in connection with cost accounting and pricing of our business with government agencies and commercial prime contractors under government contracts in the aircraft, missile, rocket engine, and nuclear fields. We manufacture flexible metal tube assemblies for a variety of applications in these fields.
>
> We are, with increasing frequency, being asked to submit price breakdowns with our quotations. I assume that this practice will increase. (As a taxpayer, I applaud it.) We have for some years successfully competed, using what the trade calls "ball park" estimates. This method is now losing us orders in highly competitive situations. It also does not satisfy my banker's background as a proper basis on which to do our business. Finally, I am sure that as the profit margins of the larger companies continue to be squeezed in this area, we will be losing more and more business on very fine margins.
>
> We are repricing standard examples of our line on a formula based in part on experience given to us by our sales representative. We are finding that a single formula shows wide discrepancies between the items with

large labor content and large material content (and we include in material, parts machined for us outside).

* * *

Sincerely yours,

MICROFLEX, INC.
Donald K. Sears, President

Mr. Glickman responded to Mr. Sears' inquiry, and agreed to visit the Beverly Hills plant in order to learn more about the problem.

HISTORY OF MICROFLEX, INC.

Microflex, Inc., was founded in 1947 by Mr. K. T. Duncan, an engineer and an inventor who had recognized a need for high-quality flexible tubing components in aircraft manufacturing. Although the flexible metal tube (FMT) developed by Mr. Duncan was not a new product, it did incorporate certain technical improvements which he thought made his product superior to those offered by competitors. An illustration of several varieties of flexible metal tube assemblies is reproduced in Exhibit 1. Essentially, the product was an inner core of convoluted stainless steel tubing which looked something like a cylindrical accordion. The convolutions in the inner core permitted the tubing to be expanded, compressed, or curved in any direction. In a completed assembly the inner core was covered with a metallic braid and supplied with the appropriate kind of end fitting to adapt the assembly to the ultimate use planned by the purchaser. The FMT product line manufactured by Microflex included assemblies with an inside diameter ranging from 3⁄16 on an inch up to 2 inches. All assemblies were produced to customers' specifications concerning the length of the assembly (up to twenty feet) and the type of end fittings to be attached.

The beginning of the Korean conflict and the accompanying increase in aircraft construction caused a rapid growth in business for Microflex during the early 1950's. Sales increased more slowly after 1955, but the high point was actually reached in 1957 when the sales volume was slightly in excess of $1,400,000. Income statements for the years 1958 and 1959 are presented in Exhibit 2. Mr. Sears thought that the recent decline in sales volume was the joint effect of three causes:

1. A decline in the importance of manned aircraft in governmental defense policy had reduced the number of military aircraft being constructed. Although FMT's were also used in rockets and missiles, the number of applications was not as great, and the volume of missile production was quite small when compared to the thousands of military aircraft built during the early 1950's.
2. In recent years, a new type of flexible tubing assembly had been

developed by several of Microflex's competitors. This new product involved a plastic inner core covered by a metallic braid and, although not directly competitive in certain applications, had served to reduce this size of the market for Microflex's all-metal assembly.

3. Flexible tubing assemblies of all descriptions seemed to be losing fashion among aeronautical engineers who regarded the use of such assemblies as inherently poor design. Wherever possible, the design engineers appeared to prefer a rigid tube or pipe to carry the gases or fluids. The utilization of a flexible tube assembly usually indicated a vibration problem which the engineer had been unable to solve.

Anticipating the decline in the market for flexible metal tube assemblies, Mr. Duncan formed a new company, Microflex Engineering Company (MEC), in 1957. The primary purpose of MEC was to perform research and development work for Microflex in an attempt to find new products for the parent company. All the stock of MEC was owned by Microflex, and the majority of MEC income was provided by Microflex in the form of engineering fees. Recent income statements for MEC are presented in Exhibit 3. Eighty-two thousand dollars of MEC's 1958 sales and $102,000 of the 1959 sales were to the parent company. The remaining sales were from experimental and testing services performed for other business concerns in the Beverly Hills area.

Early in 1959, Mr. Duncan, then in his early 60's, decided to retire from active management of the business and live abroad. He was able to persuade Mr. Donald J. Sears, then a vice president of a large Los Angeles bank, to accept the position as president. Mr. Sears assumed his duties in October 1959. Mr. Duncan retained 100 per cent stock ownership of the corporation, but Mr. Sears was granted certain stock options which were designed to permit him to acquire a significant percentage of the company's equity if he so desired. Mr. Duncan assumed the title of Director of Foreign Operations, and from his London office, he planned to promote the sale of Microflex's products in Europe and to continue his search for new products for the company. A final executive change in the fall of 1959 was the election of Mr. Lesley Curry to the newly created position of controller.

PRICING POLICIES

As a starting point for his investigation, Mr. Glickman decided to examine in greater detail the previous pricing policies of the company. First, he made a tour of the company's production facilities. All the company's administrative and manufacturing departments were housed in one steel building, consisting of four bays of about 3,000 square feet each. Although the company was not formally organized into departments, employees doing the same type of work were grouped together. At Mr. Glickman's request, the production manager prepared the following analysis of floor space utilization.

Analysis of Floor Space

	Square Feet
Office bay (3,000 sq. ft.):	
Production control	400
Purchasing	250
Drafting	400
Sales	500
Accounting	300
Executive	800
Lavatories and miscellaneous	350
Factory bays (9,000 sq. ft.):	
Machining	2,800
Welding	800
Assembly and final inspection	1,600
Parts inspection	600
Storeroom	1,500
Shipping	300
Carpenter shop	500
Lavatories and miscellaneous	900
Total	12,000

In addition to this space, which the company owned, approximately 5,000 square feet of space was rented at another location and was used exclusively by Microflex Engineering Corporation. Roughly 500 feet of the rented space was used as an office.

An FMT assembly was not inherently complex in a technical sense, but because of the end use of the product, the assembly had to be produced to meet rigid "aircraft" specifications. As a result, a significant number of the factory employees were engaged in inspection and quality control activities rather than in direct manufacturing. All inner core (hose) and outer covering (braid) were purchased from outside vendors. Because of satisfactory quality control by these vendors, the company did not inspect hose and braid (except for a quick visual inspection) until the final assembly was pressure tested for leaks or other defects just prior to shipping. End fittings were either purchased outside or manufactured in the company's machining department. Parts purchased outside were subjected to a rigid inspection of all critical dimensions before each lot was accepted. Parts manufactured by Microflex from aluminum or stainless steel bar stock were carefully inspected as they came off the machines. Only parts which passed inspection were allowed to enter the storeroom, where they were housed until issued for use on a specific production order. In the assembly department, the hose and braid were cut to appropriate lengths according to customers' specifications, and the end fittings were attached either mechanically or by welding or brazing.

At Mr. Glickman's request, the accounting department prepared an analysis by function of the forty-six factory employees on the payroll in January 1960. Mr. Curry pointed out that the level of factory employment had declined during 1959 so that the payroll for January 1960 was less than the average monthly factory payroll incurred during 1959.

Analysis of Factory Labor, January 1960

	No. of Persons	*Payroll*
Machining department	11	$ 3,564
Welding and brazing department	6	1,764
Assembly department	11	3,126
Experimental work at MEC	3	864
Parts inspection	3	744
Assembly inspection	4	976
Storeroom	2	512
Shipping	1	312
General maintenance	4	1,048
Truck driver	1	232
Totals	46	$13,142

Mr Glickman asked the sales manager, Mr. C. F. Wheaton, to describe the company's pricing procedures and any other background information pertinent to the current problem. Mr. Wheaton explained that Microflex employed no field salesmen, and that all orders were received through a firm of manufacturer's representatives called Technical Products Distributors, Inc. (TPD). This firm specialized in distributing the products of small manufacturers supplying components to the aircraft and missile industry. TPD did not handle any product which was directly competitive with Microflex's line of FMT assemblies. According to TPD's management, its salesmen were well known in the engineering and purchasing departments of the aircraft companies. Mr. Wheaton felt that for a company the size of Microflex, the use of a manufacturer's representative was not only more economical than using salesmen, but also permitted the company to get a broader and more intensive coverage of its market. Microflex paid TPD a 7 per cent commission on all orders (including repeat orders) received from customers serviced by TPD. Mr. Wheaton personally dealt with one nearby customer, and orders received from this customer were the only source of business to Microflex which were not subject to the 7 per cent commission.

The primary function of the TPD salesmen was to convince the purchaser that Microflex might be the best supplier for the part desired and to secure the purchaser's permission for Microflex to submit a quote on the part. Almost all Microflex's orders resulted from such bids. If the customer agreed to solicit a bid from Microflex, detailed specifications for the required assembly were forwarded to Microflex, either directly by the customer or through the TPD salesman. Typically, purchasing agents in the aircraft industry would request quotes from two or more suppliers. For small components such as those manufactured by Microflex, however, the purchasing agent would rarely bother to solicit more than three price quotations.

All price quotations were prepared by Mr. Wheaton and his staff, using cost information provided by the production manager. Mr. Wheaton said that, depending on the level of business activity, his department prepared from 200 to 400 price quotations each month, and usually received between 100 to 200 orders per month. It was a rare order that exceeded fifty assemblies, and the usual order quantity was from three to thirty units.

Mr. Wheaton explained that during the early 1950's, when the company was growing very rapidly, the method of determining price quotations had been quite informal. As an example of the way that he determined a price, he found in his files the work sheet that he had prepared for a part quoted in the summer of 1959.

Part No. 6794	*Quoted July 10, 1959*
Material cost	$ 8.16
Multiplier	2.5
Total cost	20.40
7% commission	1.60
Total selling price	$22.00

To arrive at the price of $22 per unit, Mr. Wheaton had first asked the production manager for an estimate of the material cost in the assembly. The estimated cost of $8.16 represented the actual cost of purchased materials such as hose, braid, and certain end fittings, plus the production manager's estimate of the cost to Microflex for producing in its own machine shop the remaining end fittings which were not purchased outside. Mr. Wheaton then multiplied this material cost by a "factor" of 2½. This factor varied, he said, depending upon his feel for the market and the reasonableness of the final price he arrived at. A 7 per cent commission for TPD was then added to total cost to arrive at the total selling price. On this quotation for part No. 6794, Microflex received the order.

As another example, Mr. Wheaton produced his worksheet for a very large FMT assembly which had been quoted on in February 1959.

Part No. 4791	*Quoted Feb. 18, 1959*	
End fittings cost	$ 45.00	
Multiplier	2	
Total for end fitting		$ 90.00
Hose and braid cost	$172.00	
Multiplier	1.5	
Total for hose and braid		258.00
Total cost		$348.00
Commission		26.00
Total selling price		$374.00

The pricing procedure for this part was essentially the same as for part No. 6794, except that in this case two different multipliers were used, a factor of 2 for the end fitting cost and a factor of 1½ for the cost of hose and braid. Mr. Wheaton explained that to use a larger multiplier on this assembly, where the cost of materials was very great, would result in a price which was too high to be successful. Microflex was successful in this price quotation and received an order for six units at a price of $374 each.

In the summer of 1959, the volume of new orders received by Microflex began to decline sharply. Mr. Wheaton knew that this decline, in part, was due to the fact that the volume of business in the aircraft industry was declining. According to the TPD salesmen with whom Mr. Wheaton was in frequent contact, however, Microflex was suffering more from the decline than were its competitors. Apparently this was due to the fact that, as the volume of available business shrank, some suppliers were lowering their price quotations in an effort to achieve a greater percentage of the available business. In the face of this increasing competition, Mr. Wheaton had begun to feel less and less satisfied with his pricing procedures. He said that he had never been really "comfortable" with the method of pricing that he had been using, because it relied to a great extent on his personal judgment and his feel for the market. He pointed out that since he had very little direct contact with his customers, he did not think that his feel for the market was sensitive enough to measure the need for a small reduction in prices. Furthermore, he was uncertain as to the extent to which Microflex could reduce its prices and still operate profitably. Mr. Wheaton did not know how much prices needed to be cut in order to meet his competition, because the purchasing agents usually would not divulge to the unsuccessful bidder the price that had been quoted by the successful supplier.

Another fault with the old method of determining prices was that, when Mr. Wheaton was out of the office, price quotations would be prepared by his assistant or other members of his staff, and these people might use a multiplier different from the one Mr. Wheaton might have used.

Finally, Mr. Wheaton pointed out, the aircraft companies had recently been taking a greater interest in their suppliers' costs, and Microflex had received several requests from its customers to provide detailed cost information. As an example of these requests, Mr. Wheaton showed Mr. Glickman forms received from two major aircraft manufacturers (Exhibits 4 and 5). Mr. Wheaton knew that, under federal procurement regulations, these companies had a right to demand submission of these data, because parts manufactured by Microflex were being used on government contracts. Mr. Wheaton hesitated to refuse to supply the requested information because almost all Microflex's business came from about twenty aircraft manufacturers, and he did not feel that he should jeopardize relationships with any of these important customers.

Occasionally, Microflex received an order directly from a government agency, and was required to support its price with a detailed cost breakdown. On two occasions during the past ten years, government auditors had appeared at the plant and asked to examine the company's books in order to verify the costs reported by the company. On these "renegotiable" contracts, the auditors had refused to allow the company to charge certain expenses, such as experimental costs on new products, sales commissions, and certain other overhead items which were not "directly related to military business."

Mr. Wheaton did not think that orders received from aircraft companies were renegotiable in the sense that the price could be changed based on an examination of costs, but he was concerned about the reasons why these manufacturers, too, wanted the cost information. He had discussed the matter with several TPD salesmen, and their impression was that the purchasing departments of the aircraft manufacturers examined the cost breakdowns to make sure that the suppliers' costs were approximately in line with what was considered reasonable in the industry. For example, factory overhead rates usually exceeded 200 per cent of direct labor costs, but an overhead rate in excess of 300 per cent was considered unacceptable unless supported by a detailed explanation of the allowable costs included in the overhead. Similarly, the administrative overhead rate usually ran from 20 to 30 per cent of factory cost, and the aircraft manufacturers were unwilling to pay a price which allowed the supplier a higher percentage for the general overhead. Sales commissions, identified as such, were not chargeable on government contracts, and the government was reluctant to allow a profit margin in excess of 10 per cent of the total price.

Mr. Wheaton knew that Microflex was not bound by these industry practices in quoting prices to aircraft companies and, in fact, cost breakdowns were usually not requested with the original price quotation. The problem was that, after Microflex was notified that it had received an order, the customer might then request the company to supply a cost breakdown to support the quoted price. In response to these requests, Mr. Wheaton prepared a set of figures that arrived at the required total amount, based on estimates of labor and material costs which allowed an overhead percentage that did not appear too high and a total cost breakdown that conformed to industry standards. He had never received any requests for further information about his cost breakdowns. He was not sure how he would respond if an auditor from one of his customers showed up to verify the cost information he had supplied.

Because all these problems were related more or less directly to the company's pricing procedures, Mr. Wheaton's first recommendation to the new president, Mr. Sears, was that a new method of pricing be devised. Mr. Sears, in turn, asked Mr. Curry to study the problem, and during the Fall of 1959 the three men worked together exploring alternative pricing mechanisms. In November 1959, a large aircraft manufacturer asked Microflex to submit separate price quotations for nineteen different types of FMT assemblies. Microflex's management group decided to use this series of price quotations as a test of several different pricing formulas. The result of the experience was that Microflex received orders for only three of the nineteen components. TPD salesmen were normally unable to receive competitive price data, but because of the experimental nature of these price quotations, the salesman was able to obtain the lowest bid on each component. In sixteen instances, the successful bid was from 5 per cent to 50 per cent lower than Microflex's price, with the average successful bid from 10 to 20 per cent lower than Microflex. Mr. Wheaton showed Mr. Glickman the worksheets for several quotations used in this experiment.

Part No. 7243	*Quoted*	*Nov. 17, 1959*
Material cost	$74.69	
Multiplier	1.5	
Total for material		$112.04
Machining and assembly labor:		
6 hours at $3.00	$18.00	
Multiplier	3	
Total labor		54.00
Total cost		$166.04
Commission 7.5% of cost		12.45
Total selling price		$178.49

The quotation for part No. 7243 had been prepared by using the multiplier method but extending it to include a multiplication of labor costs as well as material costs. In this quotation, the estimate for material cost was the outside purchase price for all material used by Microflex, that is, the cost of parts machined by Microflex was estimated by including the cost of bar stock under material cost and specifically estimating the amount of labor required for machining as a separate cost item. On this quotation, Microflex's price was high by $20, and the order was awarded to another bidder.

Part No. 5797	*Quoted*	*Nov. 17,*	*1959*
Material cost	$33.62		
Multiplier	1.5		
Total for material			50.43
Machining and assembly labor:			
1½ hours at $3.00		$4.50	
Multiplier		3	
Total cost for labor			13.50
Total cost			63.93
Commission			4.80
Total selling price			68.73

The quotation for part No. 5797 was prepared in exactly the same manner as that used for part No. 7243, and this bid was one of the three successful ones in the experiment. Mr. Wheaton pointed out that the only significant difference between the two parts was that No. 5797 had a lower direct labor cost in relation to direct material cost than No. 7243 had.

Part No. 6792	*Quoted Nov. 17, 1959*
Material cost	$ 68.58
Machining and assembly labor:	
3.5 hours at $2.00	7.00
Factory overhead 3.5 hours at $5.08	17.78
G and A overhead 3.5 hours at $5.69	19.91
Total cost	$113.27
Profit 12½% of cost	14.16
Total selling price	$127.43

The method used to quote on part No. 6792 was quite different from any procedure the company had ever used before, and represented the results of Mr. Curry's analysis of available cost information. Under this new procedure, material cost was the estimated purchase cost to Microflex and was not multiplied by any factor. Machining and assembly labor were costed at $2 per hour, factory overhead was then added at the rate of $5.08 for each labor hour, and general and administrative overhead was added at a rate of $5.69 for each labor hour. A profit equal to 12½ per cent of the total cost was then added to arrive at the total selling price. Microflex was the successful bidder on part No. 6792, but this same method of price determination was used on ten other parts in the experiment and, in each case, a competitor quoted a lower price than Microflex. In spite of this low success ratio using the new method, Mr. Wheaton thought it was an improvement over the old method because it added overhead based on direct labor costs, a procedure which was more in line with the normal costing formulas in the industry. He was still concerned, however, because Microflex's overhead rates, particularly the administrative overhead rate, was much higher than the industry "norm."

Since the November experiment, Mr. Wheaton told Mr. Glickman that he had continued to use a variety of pricing formulas, none of which had appeared to be more successful than any other. His enthusiasm for the new pricing formula had waned because of the results it had produced on several occasions.

Using the new formula on part No. 3472, Mr. Wheaton had arrived at a total price of $17.19. Microflex had produced this same part for the same customer early in 1958 and, at that time, had received a price of $18.10 per unit. As was usually the case when a customer reordered after a lapse of several months, the customer had requested a new price quota-

Part No. 3472	*Quoted Dec. 4, 1959*
Material cost	$ 6.21
Assembly labor .71 hours at $2.00	1.42
Factory overhead .71 hours at $5.08	3.61
G and A overhead .71 hours at $5.69	4.04
	$15.28
Profit 12½% of cost	1.91
Total selling price	$17.19

tion before placing a new order, and Mr. Wheaton had had to decide whether to quote on the business at a different price than the price used in 1958. He finally decided not to lower the price to that indicated by the pricing formula. The customer had placed an order for fifteen units when Mr. Wheaton informed him that the previous price of $18.10 was still effective.

Part No. 5726	*Quoted Jan. 11, 1960*
Material cost	$ 9.84
Assembly labor (.72 hours at $2.00)	1.44
Factory overhead (.72 hours at $5.08)	3.66
G and A overhead (.72 hours at $5.69)	4.10
Total cost	$19.04
Profit 12½% of cost	2.38
Total selling price	$21.42

The request for a price quotation on part No. 5726 was also a reorder. The original price on this component had been $27, significantly higher than the price of $21.42 indicated by the new pricing formula. In this instance, Mr. Wheaton decided to lower the price for the reorder to $23.10 per unit, and the customer had accepted the new price.

Near the end of their conversation, Mr. Wheaton showed Mr. Glickman a request for a price quotation received that morning. The customer wished to reorder part No. 2764. The original order on this part had been placed in early May 1959 at a price of $27.38.

Part No. 2764	*First Sold on April 27, 1959*	
End fittings cost	$8.50	
Multiplier	2	
Total for end fittings		$17.00
Hose and braid cost	$5.09	
Multiplier	1.5	
Total for hose and braid		7.64
Total cost		$24.64
Commission 7.5%		1.85
Total selling price		$26.49

In deciding whether or not to change the original price, Mr. Wheaton had figured what the price of this part should be, using the new pricing formula.

Part No. 2764			*New Quote Requested in February 1960*
Material cost:	hose and braid		$ 5.09
	nuts (purchased)		1.12
	bar stock		.94
Labor:	Machining	2.30 hours	
	Assembly	.75 hours	
		3.05 hours at $2.00	6.10
Factory overhead		3.05 hours at $5.08	15.49
G and A overhead		3.05 hours at $5.69	17.35
Total cost			$46.09
Profit 12½% of cost			5.76
Total selling price			$51.85

Since the price using the new method was nearly twice that computed by the old method, Mr. Wheaton examined the two calculations carefully. He pointed out that the cost of materials to Microflex had not changed significantly during the period. The $8.50 cost for end fittings used in the original price quotation had represented the production manager's estimate of the cost of nuts, which were purchased outside, plus the cost of other end fittings which were manufactured by Microflex, using $.94 worth of bar stock and 2.3 hours of machining labor. When these costs were set out separately and the new pricing formula applied to them, the result was to increase the indicated price on the part to $51.85. Mr. Wheaton thought that the new pricing formula was more accurate than the old one, and it was obvious to him that the company had lost money on the part when it was produced at a price of $27.38. Nevertheless, he was sure that, if he quoted the price of $51.85 to the customer, his bid would be rejected. Mr. Wheaton asked Mr. Glickman what price should be charged for this article, and Mr. Glickman said that he would like to look at the cost records more carefully before attempting to answer the question.

ADDITIONAL COST INFORMATION

At Mr. Glickman's request, Mr. Curry described the accounting system used by Microflex. Mr. Curry said that his system was quite simple to operate because the company used only one income account for all sales, and maintained twenty-five expense accounts, one for each of the categories shown in Exhibit 2. Mr. Curry then described the type of costs charged to certain accounts for which the title was not completely descriptive. The Methods and Product Engineering expense account represented payments by Microflex to its subsidiary, Microflex Engineering Corporation. The Outside Labor expense account received a variety of charges for miscellaneous services performed by outside contractors. At Mr. Glickman's request, a clerk in the accounting department reviewed the invoices charged to this account during 1959 and prepared the following tabulation.

Outside Labor—1959

Special services requested by customers:	
Packing and crating	$ 3,462.33
Rust proofing	2,278.95
X-ray and other special testing	3,998.50
Plating	606.51
Parking lot repairs	990.49
Pumping septic tank	982.00
Unclassified	1,195.49
Total	$13,514.27

The Factory Expense account received an even greater variety of charges. Mr. Curry explained that it would be almost impossible to analyze all the transactions in this account during 1959, because the goods and services received had been purchased from more than one hundred vendors. Mr. Glickman asked that an effort be made to pull out the most significant items included in the expense account, and the following analysis was prepared after several hours of work by a clerk in the accounting department.

Factory Expense—1959

Manufacturing supplies and small tools	$13,488.17
Welding and brazing materials	4,487.01
Inspection gauges and supplies	2,253.50
Packing and shipping supplies	2,993.21
Drafting supplies and equipment	1,414.35
Building maintenance supplies and services	1,333.82
Unclassified invoices	8,414.32
Total	$35,384.38

The Freight account was primarily the expense incurred by Microflex on incoming shipments of supplies and materials purchased by Microflex. On most shipments of finished goods, freight was paid by the customer, but in some cases where freight cost was absorbed by Microflex, the expense was charged into the Freight account.

Mr. Glickman also asked Mr. Curry for an analysis of the Office and Sales Salaries during 1959. Mr. Curry said this information would be relatively easy to obtain, but that it would not be too useful because the company had hired several new office employees, including himself and Mr. Sears, during the latter part of 1959. Instead, Mr. Curry prepared the breakdown of the charges to this account in January 1960, as shown below.

Analysis of Office and Sales Salaries, January 1960

	No. of Persons	*Payroll*
Shop foreman	1	$ 480
Production manager and staff	5	1,750
Purchasing agent and clerk	2	650
Drafting department	4	1,175
Treasurer and clerk	2	940
Office manager, receptionist, and secretaries	4	1,380
Sales manager and staff	6	1,950
	24	$8,325

Mr. Curry said that he would be happy to provide Mr. Glickman with any additional information that he desired, if this information could be obtained from the available accounting records.

Required

1. Do you think the list of twenty-five expense accounts (Exhibit 2) provides adequate detail for management purposes? What new accounts, if any, would you establish?
2. Using the account structure you recommended in Question 1, classify the accounts according to whether you consider the expense to represent (a) direct labor, (b) direct material, or (c) overhead. What subdivisions within the overhead group (factory overhead, selling overhead, and so forth) would you recommend?
3. Using the expense classification you prepared in Question 2, devise a pricing formula for Microflex which you believe Mr. Wheaton and his staff should use for pricing new business and reorders. What price should be quoted for part No. 2764 in February 1960?

EXHIBIT 1 Flexible Metal Tube Assemblies

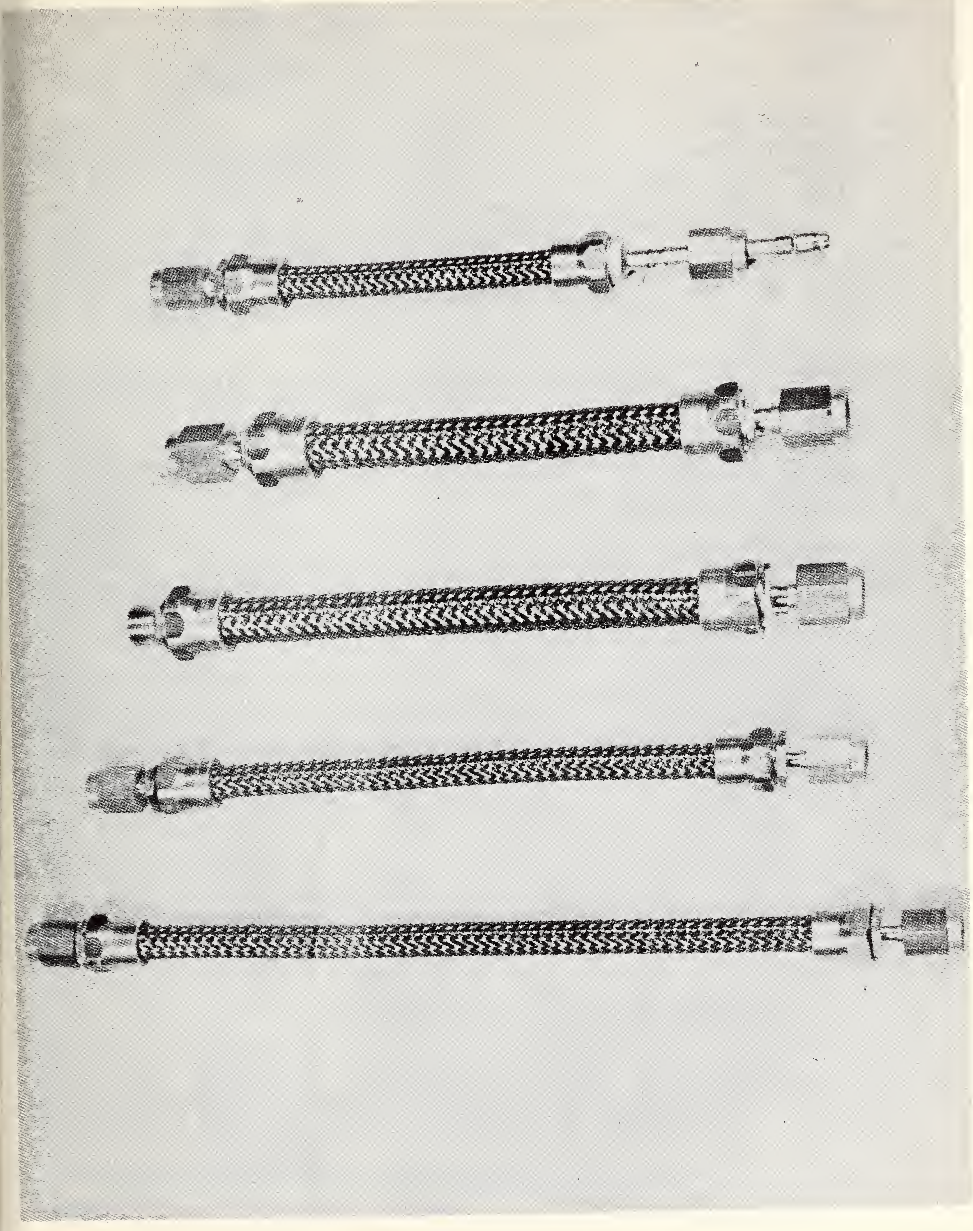


EXHIBIT 2

Statement of Income for 1958 and 1959

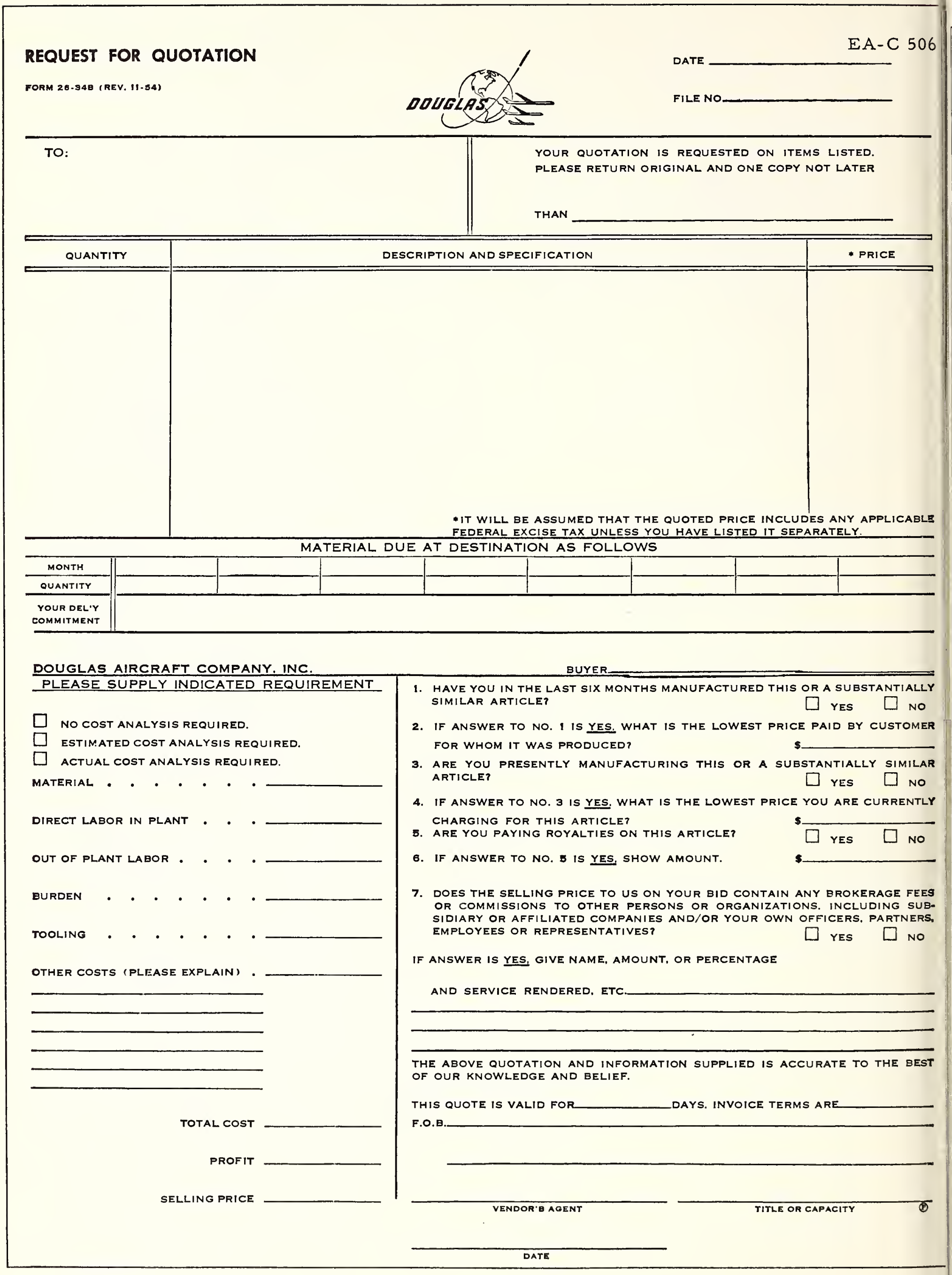
	1959	1958
Net Sales	$1,259,810	$1,321,056
Cost of Goods Sold:		
Beginning inventory	$ 184,244	$ 147,312
Materials and supplies purchased	442,091	460,674
Factory labor	255,833	252,718
Methods and product engineering	102,000	82,000
Outside labor	13,514	24,842
Factory expense	35,384	34,610
Heat, light, & power	5,950	6,789
Insurance	4,285	5,921
Depreciation	29,256	27,763
Freight	8,172	11,716
Repairs	2,485	5,136
Rent	1,682	2,810
Truck expense	784	1,384
Subtotal	$1,085,680	$1,063,675
Less ending inventory	193,629	184,244
Cost of goods sold	$ 892,051	$ 879,431
Gross profit	$ 367,759	$ 441,625
Administrative, Selling and Other Expenses:		
Executive salaries	$ 50,247	$ 45,000
Office and sales salaries	74,985	66,854
Sales commissions	81,704	73,120
Telephone and telegraph	14,571	11,699
Travel and entertainment	24,414	28,505
London office	23,115	-
Taxes: property	3,077	3,163
payroll	16,887	15,109
Office supplies	7,915	10,971
Postage, dues, subscriptions, etc.	2,910	2,128
Legal and audit services	10,615	7,195
Advertising	14,475	3,813
Employees Blue Cross	2,485	46
Total expenses	$ 327,400	$ 267,603
Operating profit	$ 40,359	$ 174,022
Other income and expense (net)	1,927	(3,033)
Profit before taxes	$ 38,432	$ 177,055
State and federal income taxes	16,400	91,203
Net income	$ 22,032	$ 85,852

EXHIBIT 3

Microflex Engineering Company
Statement of Income for 1958 and 1959

	1959	1958
Sales	$117,179	$96,051
Cost of Sales:		
Materials purchased	$ 10,947	$ 7,300
Factory labor	51,569	36,199
Outside labor	918	21
Heat, light & power	2,130	295
Factory supplies & expense	5,601	3,653
Insurance	2,416	293
Depreciation and amortization	10,078	6,403
Freight	866	1,792
Repairs	289	142
Rent	6,699	1,320
Decrease in inventory	3,584	2,506
Total cost of sales	$ 95,097	$59,924
Gross profit	$ 22,082	$36,127
Administrative and Selling Expenses:		
Executive salary	$ 4,100	$ 4,502
Telephone and telegraph	1,944	1,664
Office supplies, postage, dues, etc.	777	989
Advertising	1,013	819
Travel and entertainment	237	513
Commissions	131	289
Legal and audit	1,968	1,578
Taxes: property and misc.	661	69
payroll	2,967	1,317
Automobile expense	349	168
Total expenses	$ 14,147	$11,908
Operating profit	$ 7,935	$24,219
Other income and expenses (net)	(28)	18
Net profit before taxes	$ 7,963	$24,201
State and federal income taxes	2,696	8,192
Net income	$ 5,267	$16,009

EXHIBIT 4



REQUEST FOR QUOTATION

FORM 26-348 (REV. 11-54)

DOUGLAS

EA-C 506

DATE ____________

FILE NO. ____________

TO:

YOUR QUOTATION IS REQUESTED ON ITEMS LISTED. PLEASE RETURN ORIGINAL AND ONE COPY NOT LATER THAN ____________

QUANTITY	DESCRIPTION AND SPECIFICATION	* PRICE

*IT WILL BE ASSUMED THAT THE QUOTED PRICE INCLUDES ANY APPLICABLE FEDERAL EXCISE TAX UNLESS YOU HAVE LISTED IT SEPARATELY.

MATERIAL DUE AT DESTINATION AS FOLLOWS

MONTH								
QUANTITY								
YOUR DEL'Y COMMITMENT								

DOUGLAS AIRCRAFT COMPANY, INC.

BUYER ____________

PLEASE SUPPLY INDICATED REQUIREMENT

☐ NO COST ANALYSIS REQUIRED.
☐ ESTIMATED COST ANALYSIS REQUIRED.
☐ ACTUAL COST ANALYSIS REQUIRED.

MATERIAL . . . . ____________

DIRECT LABOR IN PLANT . . . ____________

OUT OF PLANT LABOR . . . . ____________

BURDEN . . . . ____________

TOOLING . . . . ____________

OTHER COSTS (PLEASE EXPLAIN) . ____________

TOTAL COST ____________

PROFIT ____________

SELLING PRICE ____________

1. HAVE YOU IN THE LAST SIX MONTHS MANUFACTURED THIS OR A SUBSTANTIALLY SIMILAR ARTICLE? ☐ YES ☐ NO
2. IF ANSWER TO NO. 1 IS YES, WHAT IS THE LOWEST PRICE PAID BY CUSTOMER FOR WHOM IT WAS PRODUCED? $____________
3. ARE YOU PRESENTLY MANUFACTURING THIS OR A SUBSTANTIALLY SIMILAR ARTICLE? ☐ YES ☐ NO
4. IF ANSWER TO NO. 3 IS YES, WHAT IS THE LOWEST PRICE YOU ARE CURRENTLY CHARGING FOR THIS ARTICLE? $____________
5. ARE YOU PAYING ROYALTIES ON THIS ARTICLE? ☐ YES ☐ NO
6. IF ANSWER TO NO. 5 IS YES, SHOW AMOUNT. $____________
7. DOES THE SELLING PRICE TO US ON YOUR BID CONTAIN ANY BROKERAGE FEES OR COMMISSIONS TO OTHER PERSONS OR ORGANIZATIONS, INCLUDING SUBSIDIARY OR AFFILIATED COMPANIES AND/OR YOUR OWN OFFICERS, PARTNERS, EMPLOYEES OR REPRESENTATIVES? ☐ YES ☐ NO

IF ANSWER IS YES, GIVE NAME, AMOUNT, OR PERCENTAGE AND SERVICE RENDERED, ETC. ____________

THE ABOVE QUOTATION AND INFORMATION SUPPLIED IS ACCURATE TO THE BEST OF OUR KNOWLEDGE AND BELIEF.

THIS QUOTE IS VALID FOR ____________ DAYS. INVOICE TERMS ARE ____________

F.O.B. ____________

____________ VENDOR'S AGENT

____________ TITLE OR CAPACITY

____________ DATE

EXHIBIT 5

EA-C
506

VENDOR COST BREAKDOWN (PRODUCTION)

VENDOR PART NUMBER ______
COMPANY ______ BOEING PART NUMBER ______ Date ______
Cost Breakdown for ______ (Qty.) Units - We have previously manufactured ______ (Qty.) Units
A separate Cost Breakdown should be made for each quantity quoted

				Overhead		
Direct Labor:	Hours	Rate/Hour	Total	%	Dollars	$ PER UNIT
Fabrication						
Processing						
Sub-Assembly						
Final Assembly						
Testing						
If classified as Direct Labor:						
Planning						
Inspection						
Tool Maintenance						
Packaging & Shipping						
Other (Explain)						
Total Direct Labor plus Overhead on Direct Labor						

				Overhead		
Material:	Dollars	$ Scrap	Total	%	Dollars	
Raw Material						
Purchased Parts						
Subcontracted						
Material						
Labor						
Total Direct Material plus Overhead on Direct Material.						

Engineering: (Sustaining) ______ % of ______
Other: ______ % (Explain) ______
Total Manufacturing Cost . . . .

General & Administrative: ______ %
Other: ______ % (Explain) ______
Profit: ______ % . . . .
TOTAL. . . . .

Non-Recurring Cost	Dollars
Engineering ______ Hours @ $ ______ Per Hour	
Tooling ______ Hours @ $ ______ Per Hour	
Tooling Material Cost	
Qualification ______ Hours @ $ ______ Per Hour	
Other Non-Recurring Cost (explain) ______	
Total Non-Recurring Cost	

Non-Recurring Cost Amortized ______ (Qty.) Units . . . .
TOTAL UNIT SELLING PRICE TO BOEING . . . .

______
By (Signature) - Title

CASE 48

Bill French, Accountant

Bill French picked up the phone and called his boss, Wes Davidson, controller of Duo-Products Corporation. "Say, Wes, I'm all set for the meeting this afternoon. I've put together a set of break-even statements that should really make the boys sit up and take notice—and I think they'll be able to understand them, too." After a brief conversation about other matters, the call was concluded, and French turned to his charts for one last check-out before the meeting.

French had been hired six months earlier as a staff accountant. He was directly responsible to Davidson and, up to the time of this case, had been doing routine types of analysis work. French was an alumnus of a liberal arts undergraduate school and graduate business school, and was considered by his associates to be quite capable and unusually conscientious. It was this latter characteristic that had apparently caused him to "rub some of the working guys the wrong way," as one of his co-workers put it. French was well aware of his capabilities and took advantage of every opportunity that arose to try to educate those around him. Wes Davidson's invitation for French to attend an informal manager's meeting had come as some surprise to others in the accounting group. However, when French requested permission to make a presentation of some break-even data, Davidson acquiesced. The Duo-Products Corporation had not been making use of this type of analysis in its review or planning programs.

Basically, what French had done was to determine the level of operation at which the company must operate in order to break even. As he phrased it, "The company must be able at least to sell a sufficient volume of goods that it will cover all the variable costs of producing and selling the goods; further, it will not make a profit unless it covers the fixed, or nonvariable, costs as well. The level of operation at which total costs (that is, variable plus nonvariable) are just covered is the break-even volume. This should be the lower limit in all of our planning."

The accounting records had provided the following information which French used in constructing his chart:

Plant Capacity–2,000,000 units
Past Year's Level of Operations–1,500,000 units
Average Unit Selling Price–$1.20
Total Fixed Costs–$520,000
Average Variable Unit Cost–$.75

From this information, he observed that each unit contributed $.45 to fixed overhead after covering the variable costs. Given total fixed costs of $520,000, he calculated that 1,155,556 units must be sold in order to break even. He verified this conclusion by calculating the dollar sales volume that was required to break even. Since the variable costs per unit were 62.5 per cent of the selling price, French reasoned that 37.5 per cent of every sales dollar was left available to cover fixed costs. Thus, fixed costs of $520,000 require sales of $1,386,667 in order to break even.

When he constructed a break-even chart to present the information graphically, his conclusions were further verified. The chart also made it clear that the firm was operating at a fair margin over the break-even requirements, and that the profits accruing (at the rate of 37.5 per cent of every sales dollar over break-even) increased rapidly as volume increased (see Exhibit 1).

Shortly after lunch, French and Davidson left for the meeting. Several representatives of the manufacturing departments were present, as well as the general sales manager, two assistant sales managers, the purchasing officer, and two men from the product engineering office. Davidson introduced French to the few men that he had not already met, and then the meeting got under way. French's presentation was the last item on Davidson's agenda, and in due time the controller introduced French, explaining his interest in cost control and analysis.

French had prepared enough copies of his chart and supporting calculations so that they could be distributed to everyone at the meeting. He described carefully what he had done and explained how the chart pointed to a profitable year, dependent on meeting the volume of sales activity that had been maintained in the past. It soon became apparent that some of the participants had known in advance what French planned to discuss; they had come prepared to challenge him and soon had taken control of the meeting. The following exchange ensued (see Exhibit 3 for a checklist of participants with their titles):

COOPER [Production Control]: You know, Bill, I'm really concerned that you haven't allowed for our planned changes in volume next year. It seems to me that you should have allowed for the sales department's guess that we'll boost sales by 20 per cent, unit-wise. We'll be pushing 90 per cent of what we call capacity then. It sure seems that this would make quite a difference in your figuring.

FRENCH: That might be true, but as you can see, all you have to do is read the cost and profit relationship right off the chart for the new volume. Let's see—at a million-eight units we'd. . . .

WILLIAMS [Manufacturing]: Wait a minute, now! If you're going to talk in terms of 90 per cent of capacity, and it looks like that's what it will be, you damn well better note that we'll be shelling out some more for the plant. We've already got okays on investment money that will boost your fixed costs by $10,000 a month, easy. And that may not be all. We may call it 90 per cent of plant capacity, but there are a lot of places where we're just full up and we can't pull things up any tighter.

COOPER: See, Bill? Fred Williams is right, but I'm not finished on this bit about volume changes. According to the information I've got here—and it came from your office—I'm not sure that your break-even chart can really be used even if there were to be no changes next year. Looks to me like you've got average figures that don't allow for the fact that we're dealing with three basic products. Your report here [see Exhibit 2] on costs, according to product lines, for last year makes it pretty clear that the "average" is way out of line. How would the break-even point look if we took this on an individual product basis?

FRENCH: Well, I'm not sure. Seems to me that there is only one break-even point for the firm. Whether we take it product by product or in total, we've got to hit that point. I'll be glad to check for you if you want, but . . . .

BRADSHAW [Asst. Sales Mgr.]: Guess I may as well get in on this one, Bill. If you're going to do anything with individual products, you ought to know that we're looking for a big swing in our product mix. Might even start before we get into the new season. The "A" line is really losing out, and I imagine that we'll be lucky to hold two-thirds of the volume there next year. Wouldn't you buy that, Arnie? [Agreement from the General Sales Manager] That's not too bad, though, because we expect that we should pick up the 200,000 that we lose, and about a quarter million units more, over in "C" production. We don't see anything that shows much of a change in "B." That's been solid for years and shouldn't change much now.

WINETKI [Gen'l. Sales Mgr.]: Bradshaw's called it about as we figure it, but there's something else here too. We've talked about our pricing on "C" enough, and now I'm really going to push our side of it. Ray's estimate of maybe half a million—four hundred fifty thousand, I guess it was—up on "C" for next year is on the basis of doubling the price with no change in cost. We've been priced so low on this item that it's been a crime—we've got to raise, but good, for two reasons. First, for our reputation; the price is out of line class-wise and is completely inconsistent with our quality reputation. Second, if we don't raise the price, we'll be swamped and we can't handle it. You heard what Williams said about capacity. The way the whole "C" field is exploding, we'll have to answer to another half million units in unsatisfied orders if we don't jack that price up. We can't afford to expand that much for this product.

At this point, Hugh Fraser, administrative assistant to the president, walked toward the front of the room. The discussion broke for a minute, and he took advantage of the lull to interject a few comments.

FRASER: This has certainly been enlightening. Looks like you fellows are pretty well up on this whole operation. As long as you're going to try to get all the things together that you ought to pin down for next year, let's see what I can add to help you.

Number one: Let's remember that everything that shows in the profit area here on Bill's chart is divided just about evenly between the government and us. Now, for last year we can read a profit of about $150,000. Well, that's right. But we were left with half of that, and then paid out dividends of $50,000 to the stockholders. Since we've got an anniversary year coming up, we'd like to put out a special dividend of about 50 per cent extra. We ought to hold $25,000 in for the business, too. This means that we'd like to hit $100,000 *after* the costs of being governed.

Number two: From where I sit, it looks like we're going to have to talk with the union again, and this time it's liable to cost us. All the indications are—and this isn't public—that we may have to meet demands that will boost our production costs—what do you call them here, Bill—variable costs—by 10 per cent across the board. This may kill the bonus-dividend plans, but we've got to hold the line on past profits. This means that we can give that much to the union only if we can make it in added revenues. I guess you'd say that that raises your break-even point, Bill—and for that one I'd consider the company's profit to be a fixed cost.

Number three: Maybe this is the time to think about switching our product emphasis. Arnie Winetki may know better than I which of the products is more profitable. You check me out on this Arnie—and it might be a good idea for you and Bill French to get together on this one, too. These figures that I have [Exhibit 2] make it look like the percentage contribution on line "A" is the lowest of the bunch. If we're losing volume there as rapidly as you sales folks say, and if we're as hard pressed for space as Fred Williams has indicated, maybe we'd be better off grabbing some of that big demand for "C" by shifting some of the facilities over there from "A."

That's all I've got to say. Looks to me like you've all got plenty to talk about.

DAVIDSON: Thanks, Hugh. I sort of figured that we'd get wound up here as soon as Bill brought out his charts. This is an approach that we've barely touched, but, as you can see, you've all got ideas that have got to be made to fit here somewhere. I'll tell you what let's do. Bill, suppose you rework your chart and try to bring into it some of the points that were made here today. I'll see if I can summarize what everyone seems to be looking for.

First of all, I have the idea buzzing around in the back of my mind that your presentation is based on a rather important series of assumptions. Most of the questions that were raised were really about those assumptions; it might help us all if you try to set the assumptions down in black and white so that we can see just how they influence the analysis.

Then, I think that Cooper would like to see the unit sales increase taken

> up, and he'd also like to see whether there's any difference if you base the calculations on an analysis of individual product lines. Also, as Bradshaw suggested, since the product mix is bound to change, why not see how things look if the shift materializes as Sales has forecast.
>
> Arnie Winetki would like to see the influence of a price increase in the "C" line, Fred Williams looks toward an increase in fixed manufacturing costs of $10,000 a month, and Hugh Fraser has suggested that we should consider taxes, dividends, expected union demands, and the question of product emphasis.
>
> I think that ties it all together. Let's hold off on our next meeting, fellows, until Bill has time to work this all into shape.

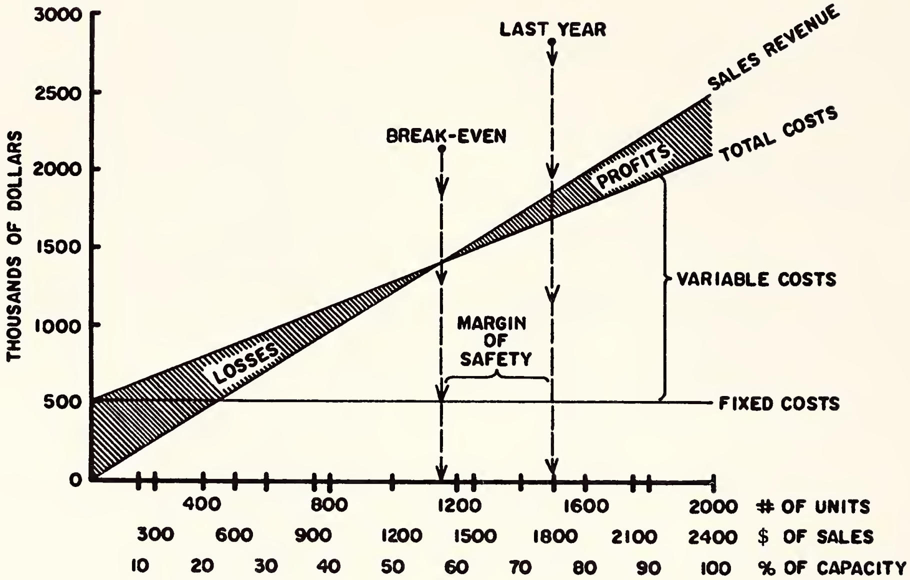
With that, the participants broke off into small groups and the meeting disbanded. French and Wes Davidson headed back to their offices and French, in a tone of concern asked Davidson, "Why didn't you warn me about the hornet's nest I was walking into?"

"Bill, you didn't ask!"

Required

1. What are the assumptions implicit in Bill French's determination of his company's break-even point?
2. On the basis of French's revised information, what does next year look like:
    (a) What is the break-even point?
    (b) What level of operations must be achieved to pay the extra dividend, ignoring union demands?
    (c) What level of operations must be achieved to meet the union demands, ignoring bonus-dividends?
    (d) What level of operations must be achieved to meet both dividend and expected union requirements?
3. Can the break-even analysis help the company decide whether to alter the existing product emphasis? What can the company afford to invest for additional "C" capacity?
4. Is this type of analysis of any value? For what can it be used?

EXHIBIT 1 Break-even Chart—Total Business



Sales Performance in 000's

Break-Even Volume = 1,156,000 units, or
$1,387,000

EXHIBIT 2

Product Class Cost Analysis
(Normal Year)

	Aggregate	"A"	"B"	"C"
Sales at full capacity (units) .	2,000,000			
Actual sales volume (units). .	1,500,000	600,000	400,000	500,000
Unit sales price	$1.20	$1.67	$1.50	$0.40
Total sales revenue	$1,800,000	$1,000,000	$600,000	$200,000
Variable cost per unit	$0.75	$1.25	$0.625	$0.25
Total variable cost	$1,125,000	$ 750,000	$250,000	$125,000
Fixed costs	$ 520,000	$ 170,000	$275,000	$ 75,000
Net profit	$ 155,000	$ 80,000	$ 75,000	-0-
Ratios:				
Variable cost to sales .	.63	.75	.42	.63
Variable income to sales	.37	.25	.58	.37
Utilization of capacity .	75.0%	30.0%	20.0%	25.0%

EXHIBIT 3

List of Participants in the Meeting

Bill French—Staff Accountant
Wes Davidson—Controller
John Cooper—Production Control
Fred Williams—Manufacturing
Ray Bradshaw—Assistant Sales Manager
Arnie Winetki—General Sales Manager
Hugh Fraser—Administrative Assistant to President

CASE 49

Redwood Memorial Park

Early in July 1960, Mr. Jedamis, president and general manager of Redwood Memorial Park, contacted Mr. Ferns, junior partner in the local office of a large national public accounting firm, and asked the firm to prepare financial statements for Redwood Memorial Park. Mr. Jedamis was interested in raising additional capital to finance the continued expansion of facilities at Redwood Memorial Park, located outside Glendale, California. In connection with this financing, Mr. Jedamis had approached a number of banks and private investors, and in each contact he was requested to produce financial statements. Prior to 1960, such requests would have presented no problem, since Mr. Jedamis had always employed an accountant to maintain the required records and to prepare financial reports. (The balance sheet for the year ending June 30, 1959, is reproduced as Exhibit 1.) In 1959, however, the accountant had resigned, and Mr. Jedamis had turned this function over to Mrs. Hobson, a clerk in the office. He assumed that she could perform the job adequately, but when he had requested the annual financial reports for the year ending June 30, 1960, he was shocked to learn that no such reports were available and that the records had been maintained in such a way that he himself was unable to compile the required statements.

Mr. Ferns agreed to prepare the requested financial statements and to appraise the operating results for the year just completed. He also agreed to make recommendations which would improve the company's reporting and accounting procedures.

HISTORY OF REDWOOD MEMORIAL PARK

In 1947, Mr. Jedamis, an independent financier, and four business associates purchased all the outstanding Redwood land certificates for a price of $385,000. The land certificates had originally been issued in 1892 (under a franchise granted by the City of Glendale, California) and carried with them the right to receive 50 per cent of the proceeds[1] of any land sold from the 360 acres of land which had been zoned for cemetery use. The cemetery itself was to retain the other 50 per cent of sales proceeds for current operating and land development expense.

However, very little cemetery development work had taken place prior to 1947 because no one felt that the cemetery could be operated profitably on 50 per cent of the sales proceeds specified by the franchise for operating expense, and hence no one assumed responsibility for the cemetery's operation. But Mr. Jedamis saw an opportunity for profit not in the operation of the cemetery itself, but in the land certificate shares which permitted their holders to receive 50 per cent of the sales proceeds with no further obligations on their part. This, he felt, was a unique opportunity since very few cemetery franchises (the right to operate a cemetery granted by a local municipality) had been granted which permitted private investors to hold the land certificates. The majority of franchises had been granted to fraternal organizations, religious groups, and other nonprofit institutions.

The cemetery was organized as a separate legal corporation but had issued no stock and, in effect, owned itself. It was not owned by the holders of the land certificates, nor was it owned by those who had purchased plots in the cemetery, since they had the right to use the land for eternity, but did not legally hold title to it. The 360 acres of land was owned by the holders of the land certificates until it was sold as burial plots. At that time, the title to the specific land plots passed to the Cemetery Corporation.

Although there was no legal relationship between the certificate holders and the cemetery, other than that described above, the nature of this relationship gave the certificate holders an incentive to promote the sale of plots in the cemetery. Because of this, Mr. Jedamis assumed the position of president and general manager of the Cemetery Corporation and hired a superintendent to run the cemetery. All expenses connected with the cemetery's development, promotion, and maintenance were incurred by the Cemetery Corporation and were to be recovered from its share of the sales proceeds.

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[1] "Proceeds" was defined in the franchise as follows: "The proceeds of lot sales should be computed on the basis of the gross amount charged for the sale of the use of lots or plots, excluding charges for endowment care thereon, less cash discounts allowed, and, less compensation of all salespersons. In general, the term 'compensation' is limited to salaries and commissions paid to salesmen and sales managers."

To further encourage and finance the cemetery's development the certificate holders had, since the cemetery's reactivation in 1947, permitted the Cemetery Corporation to use their share of the sales proceeds (at no interest). Their share, to June 30, 1959, amounted to $1,099,111.96 and represented the cost of raw land to the cemetery on gross sales of $4,622,592.44. Mr. Jedamis planned the promotion of the cemetery as a memorial park rather than merely maintaining it as a graveyard which would have been consistent with industry practice at the time. Mr. Jedamis described the difference between a graveyard and a memorial park in a speech he gave to the Glendale Chamber of Commerce by saying,

> For hundreds of years the word "cemetery" has been associated with the cold, dismal utility of a hole in the ground to be used for the disposition of human remains after death. The word commonly conveys a feeling of morbidness, gruesomeness, and unhappiness, and acts to repel people from anyone or anything associated with it. My associates and I have promoted Redwood Memorial Park on the basis of life and beauty rather than sadness and death. It is a garden of beauty rather than a graveyard. We have constructed lakes, fountains, memorial arches, and an outside memorial chapel where services can be performed under the open skies. We have preserved the natural trees in the area and planted scores of different varieties of flowering shrubs and perennial plants, and all of this has been done in accordance with a landscaping plan that provided for division of the memorial park into sectors which were patterned after some Biblical garden, for example, the Garden of Gethsemane. And perhaps most important, the gravestone or tomb marker has been eliminated except for a small bronze plate which has been placed at the point of burial but flush with the ground. The final result of this idea has been the transformation of the historic graveyard into an outdoor art gallery set in a beautiful garden [see Exhibit 2].

The memorial park concept had practical significance as well as esthetic value. Normal maintenance of the grounds was one-tenth as great as in the typical graveyard since the area could be cared for by ganged power equipment rather than requiring the extensive handwork of a typical graveyard. The park also eliminated the factor of economic status, as measured by the size of a marble monument, since all markers were flush with the ground and were the same size. One exception to this was the "estate," a block of from 10 to 15 spaces set aside for one family. It contained special landscaping, a memorial bench, and a bronze plaque with the family name on it.

The major source of Redwood's income was from the sale of land as burial plots. The major cemetery expense was the cost of land composed of two parts: first, the cost of the raw land itself (50 per cent of the sales "proceeds" paid to Mr. Jedamis and his associates), and second, the cost of developing the raw land into a form suitable for burial plots.

SALES INCOME

The cemetery had three types of sales income during the year: (1) sale of land as burial plots, (2) sale of burial services (the interment), and (3) sale of bronze burial markers.

The largest part of the cemetery's income in 1960 was from the sale of burial plots on a pre-need basis. The selling approach stressed the importance of providing the family with burial facilities before the need for such facilities actually arose, thus alleviating the sorrow of the family at the time of a death. A sale consisted of one or more burial spaces, but the typical purchase was a lot (four spaces).

The price of a space, which ranged from $125 to 250, or the price of an estate (10 to 15 spaces) which sold for $6,000 to $8,000, depended upon a number of factors. First was the nearness of the space to the feature piece in each section or garden such as the cross, rose arbor, the chapel, walkways, or pieces of shrubbery. These features increased the value of the plot. Second was the degree of completion or sales saturation level of each section. The sales manager stated that, "The nearer a section approaches saturation, the higher the price of the plots becomes, since most of the development costs have then already been recovered and thus there is not as much pressure from management to sell such lots. Also, the first spaces in a newly developed section are hardest to sell—therefore a lower price. The real criterion is the old axiom of supply and demand. You get what the market will bear for the spaces." The average purchase in 1960 was $600 or 3.0 spaces.

A space could be purchased for cash or could be paid for over a period of time. No interest was charged on a purchase which was paid for over a period of time, but a 15 per cent price reduction was given to the purchaser if he paid for his plot within 30 days after purchase. This 15 per cent discount amounted to $9,341.09 during the fiscal year just ended.

Total plot sales for the year were $497,397.50, as shown in Exhibit 3. However, this figure did not reflect certain sales cancellations. A sale could be cancelled by the customer directly, or by his failure to make the stipulated monthly payment on his sales contract, but any money which he had paid toward the purchase of a plot was forfeited by him, and the land spaces were then returned to the inventory of unsold spaces. The sales which were cancelled during the fiscal year 1960 are listed in Exhibit 3.

Redwood charged $70 for each interment (burial), and received $28,000 from this source during 1960. This price covered opening the space, the graveside service, and the work necessary to restore the sod to its original condition. During the same period of time, the income from installation of bronze markers amounted to $18,282.50. Redwood Memorial Park did not sell the markers, but installed them for an average price of $40.

SALES, SALARIES, AND COMMISSIONS

When a sale was written up, the salesman making the sale received his commission on the sale in full before the company was permitted to receive the balance of the sales proceeds. On cash sales this presented no problem, since the salesman was paid his commission at once and the company likewise received the balance of the sales proceeds immediately. However, a sale on account required additional bookkeeping, since the down payment on the sale plus the first several monthly payments belonged to the salesman as sales commission. Once the sales commission had been paid in full, future installment payments belonged to the company. The company allowed the salesman to collect his commission from the first money received from a sale (called "front money"), but did not pay him the full commission until the sales contract had "thrown off" the required cash. When a sales contract was cancelled before it was fully paid, no refund of commissions already paid the salesman was required, but likewise, any unpaid commission was cancelled at the time of sales cancellation. Sales cancellations and the related sales commissions are listed in Exhibit 3.

The sales force received $75,834.72 of sales commissions in cash during the fiscal year just ended, but $30,034.72 of this amount represented the payment of commissions which had been owed to the sales force on June 30, 1959 (see Exhibit 1). In addition to the balance of sales commissions still due the sale force (as of June 30, 1960) from sales made in fiscal years prior to 1960, Redwood owed $32,968 in sales commissions on sales made during the 1960 fiscal year. Of this amount, $12,033 represented commissions on contracts from which the required front money had been received from the purchaser, but had not yet been paid to the salesmen, and $20,935 was the amount of sales commissions on sales contracts which had been consummated but from which the cash throwoff (front money), needed to cover the sales commissions, had not been collected as of June 30, 1960. As of the same date, cash advances of $20,800 were outstanding against these deferred commissions. The sales manager and his staff were paid salaries of $60,225 during the fiscal year just ended.

ACCOUNTS RECEIVABLE

Accounts Receivable from lot purchasers amounted to $639,810.28 as of June 30, 1960. An aging of these accounts was available and has been reproduced as Exhibit 4. No reserve for bad debts had been established. In addition to these amounts, $16,411.85 of customers' notes had been discounted at the Sun Valley Trust Company with a 20 per cent reserve withheld by the bank on the total amount of discounted notes. The value of any noncollectible notes would be deducted by the bank from this reserve. It was also noted that as of June 30, 1960, the U. S. Trust Company held $35,000 of discounted notes on which the cemetery was contingently liable. No reserve had been withheld on these notes since the bank had full recourse against the cemetery. The total cost of discounting to the cemetery for the year was $575.82.

COST OF LAND TO REDWOOD MEMORIAL PARK

The cost of the cemetery land was the largest expense incurred by the cemetery during the fiscal year ending June 30, 1960, and was composed of two parts: first, the portion of the sales proceeds which had to be paid to the land certificate holders, and second, the cost of developing the land into a memorial park.

Before the raw land was sold as burial plots, it was graded, subdivided into spaces, and landscaped. The grading required heavy construction equipment and skilled operators, the subdividing required a landscape artist and a surveying team, and landscaping required not only labor but tons of grass seed, scores of shrubs, and a large amount of cement for walkways and feature pieces. It had not been possible to accumulate these direct costs by individual lots, but the costs had been accumulated by sections of the cemetery. These costs had been accumulated in a suspense account, the cemetery development cost account (see Exhibit 5), but this account did not include the indirect costs incurred by the ground's crew in land development work.

Land development was not carried out on a prescheduled basis but was initiated by the cemetery's ground maintenance crew during the winter months in its spare time. When other duties permitted, the crew cleared the brush and trees off the land in preparation for the grading and leveling to be performed by an outside contractor. The roads, walkways, and all feature pieces were also constructed by noncemetery personnel. The grass was planted by the maintenance crew in the spring, if time was available, but if time did not permit, this work was contracted out. The time spent by the maintenance crew in land development had not been charged to the land development account in previous years but had been treated as a current operating cost. (See succeeding section on operating costs and Part 2 of Exhibit 7 for a summary of these costs.)

The direct cost of developing the land into a memorial park (grading, roadway construction, seeding, and so on) amounted to $583,882.57 from the cemetery's inception to June 30, 1959, as shown in column 6 of Exhibit 5 (prepared by Mr. Martin, Redwood's previous accountant). However, as of June 30, 1959, $311,875.58 of this amount had already been charged off against income as the cost of land development allocated to the 30,193 spaces sold from the cemetery's inception to June 30, 1959. A balance of $272,006.99 remained in this deferred expense account as of June 30, 1959 (see Exhibit 1). As shown in Exhibit 5, the land development cost was allocated to the spaces sold on a percentage of completion method. The estimated percentage of completion (column 4, Exhibit 5) was determined by the park superintendent each year and could increase or decrease from year to year. The park Superintendent's estimate was based on his judgment of the physical level of completion of a section rather than on a precisely calculated percentage based on dollar completion of a section. This figure could be changed by several events: first, additional expenditures on a section bringing it closer to completion; second, an increase (or decrease) in the estimate of labor and material required to complete the section which would decrease (or increase) the percentage of completion; third, variance caused by human error in estimating from year to year; and fourth, the landscape plan of a section might be redesigned which in turn would affect the number of spaces (or unsalable spaces) in a section. The park superintendent's estimates of percentage of completion and other section data were summarized for the year 1960 and are reproduced as Exhibit 6.

The direct development costs of $31,387.50 for the 1960 fiscal year were: architect fees, $3,003.28, equipment rentals, $8,378.20, construction materials, $16,728.16, and direct general labor, $3,277.86. These costs were broken down by section as shown in Exhibit 6. The number of spaces sold during 1960 was 2,483, but Mrs. Hobson, the bookkeeper, was uncertain about the method of allocating to these spaces some portion of deferred development costs. She did not know whether to charge income from these spaces with fiscal year direct costs of $31,387.50, an average cost based on previous allocations, or some other cost computed on a percentage of completion basis from the information available (Exhibits 5 and 6).

COST OF OPERATING AND MAINTAINING REDWOOD MEMORIAL PARK

Exhibit 7 is a reproduction of a summary of the expense accounts for the fiscal year ending June 30, 1960, as given to Mr. Ferns. Part 1 listed the expenses connected with the general operation of the cemetery and the business office. Part 3 listed the company's fixed assets and the depreciation accumulated to June 30, 1959.

Part 2 described those costs associated with the annual maintenance of the cemetery, *indirect* costs of land development, costs incurred in preparing for interments, and costs related to the installation of bronze markers. These costs had not been maintained separately for each of the above operations.

The grounds crew of twelve men, the park superintendent, and a four-month summer work force of five men, performed the operations noted in the preceding paragraph. This work force was subdivided into five functional crews. First was the gardening crew composed of four regulars and three summer men. From April through September, this crew spent its full time trimming shrubs, edging walkways, weeding and mulching flower beds, and generally caring for the cemetery's flowers and shrubs. During the remaining months of the year, the crew spent its time removing and replanting dead shrubs and other plants, cleaning and repairing equipment, and cutting brush on undeveloped land in preparation for grading. The crew spent approximately one-third of its time on each of these activities during the winter months.

The second crew, the interment crew, consisted of four regular employees whose job was to prepare for interments, install bronze markers, and to assist the garden crew when no interment or marker work was available. It normally took the crew three hours to prepare an interment and replace the sod, and generally required 50 minutes to install a bronze marker and its cement base. Because there was no seasonality to interments, the crew spent most of its time year-round on interments and marker installations, but did assist the garden crew in grounds maintenance from April to October and in land development the remainder of the year in any spare time.

The third crew, the estate crew, was composed of one regular and one summer employee. This crew spent the summer months cutting grass with hand mowers in the estate sections, since the shrubbery which was used to form a border around each estate prohibited the use of ganged power mowers. Approximately 90 per cent of all shrubbery in the cemetery had been planted on estate plots to set them off from the general cemetery spaces. The regular employee of this crew spent the rest of the year pruning trees or assisting in the reseeding and replanting of various areas of the cemetery.

Fourth was the grass-mowing crew which consisted of two regular and one summer employee who operated the ganged power mowers used in cutting the lawn. This was a full-time job from April to October, but during the rest of the year this crew cleaned, oiled, and repaired maintenance equipment, and worked on undeveloped land clearing off brush and trees or planting new lawn. Their time was equally divided between these two activities.

Finally, one regular employee spent full time manufacturing cement bases for the bronze markers and acting as custodian for the cemetery garage. His workshop was housed in the garage and thus he could sign out equipment and issue supplies without interfering with the manufacture of cement bases.

The park superintendent stated that the average salary of a regular employee was $4,500 a year and that the summer help was typically paid $300 per month. He further commented that the cost of maintaining a section was constant regardless of the number of interments which had been made in the section and that a regular crew of twelve men was required to care for the cemetery even if no land development work was carried out. Land development was a spare time activity and was only performed when the men were not occupied by maintenance work and during time which otherwise would have been wasted. The land development work of the ground's crew was confined to three sections during the 1960 fiscal year. Roughly one-half of its spare time was spent in section 10, and the remainder of its activity was equally split between sections 7 and 11.

In order to insure the lot purchaser that his plot would be cared for eternally, Redwood set aside a portion of the sales price of each plot to be deposited in a perpetual care fund, the income from which was to be used to defray the cost of future cemetery maintenance. When closing a sale, the sales force stressed the importance of the perpetual care clause in the contract. Each sales contract contained a clause which stated that the cemetery would maintain the burial space in a park-like surrounding for eternity. The sales manager expressed this sales philosophy in an article he had written when he said, "We are not selling graves—we are giving comfort and courage to the living not only through our counselors but by assuring them that their final resting place will be eternally cared for."

When a sale was made, 10 per cent of the gross sales price of the plot was deducted from the proceeds and deposited in an irrevocable trust fund at the Sun Valley Trust Company. This trust fund deposit was not refundable and if for any reason the lot was returned to the cemetery at a future time, the original trust fund deposit could not be transferred or used to offset a deposit that Redwood had not yet made on another sales contract. Likewise, if a returned lot was sold a second time, a second deposit was required by the trust company. If an estate was sold, a 25 per cent deduction was made, since an estate required considerably more upkeep and thus required a larger deposit in order to provide the income necessary for perpetual care. The management of Redwood hoped that the income from this trust fund would provide for the cost of perpetual maintenance care of the cemetery. This was an important selling point and space purchasers were extremely interested in knowing that future care of their plot was insured.

The balance of this fund in the Sun Valley Trust Company as of June 30, 1959, was $406,426.89, and $41,967.76 had been deposited to this trust fund during the 1960 fiscal year. However, in addition to the amount in the fund on June 30, 1959, Redwood owed the trust company $147,167.61 on sales made, but on which the cash had not yet been remitted to the trust company (see Exhibit 1). The trust company permitted the cemetery to retain the 10 per cent (or 25 per cent on estate sales) endowment deduction until the final payment had been received from a sales contract, but the entire liability became payable as of the end of the quarter in which the final sales installment was received. During the second quarter of 1960, $28,933.07 of the endowment liability had been collected, but this amount had not been deposited with the Sun Valley Trust Company as of June 30, 1960. An income statement from this fund showed that Redwood had received income of $17,379.38 for the 1960 fiscal year.

Required

1. Prepare an example showing the ultimate distribution of the selling price of a space.
2. Determine the gross margin on lot sales made during the fiscal year ending June 30, 1960, with particular emphasis on the cost of spaces sold during the year.
3. Prepare financial statements for Mr. Jedamis for the fiscal year ending June 30, 1961. Don't "plug" the ending cash amount figure. Show the calculation by which it was computed. Would you recommend that Mr. Jedamis use these statements in support of his loan request to the bank?
4. Is the perpetual care fund plan adequate to provide for the "eternal" maintenance of purchasers' plots?

EXHIBIT 1

Balance Sheet as of June 30, 1959

ASSETS			
Cash in banks and on hand			$ 38,629.16
Accounts Receivable			
Receivable from lot purchasers		$607,934.20	
Reserves withheld by bank		2,967.25	610,901.45
Cash Advances to Salesmen			23,529.89
Cash surrender value of insurance on life of employee			1,568.10
Fixed Assets			
	Cost	Reserve of Depreciation	
Automotive equipment	$ 6,471.41	$ 5,400.41	
Buildings	13,777.60	4,810.30	
Cemetery equipment	16,894.47	8,227.88	
Cemetery improvements	90,718.29	11,187.57	
Office equipment	18,026.56	13,700.67	
	$145,888.33	$ 43,326.83	102,561.50
Cemetery development			272,006.99
Supplies and prepaid expenses			3,713.50
Total assets (Note A)			$1,052,910.59
LIABILITIES AND DEFICIT			
Liabilities			
Accounts payable		$ 7,648.66	
Customers' credit balances		967.65	
Reserves for payroll taxes		3,808.00	
Due Endowment Care Fund			
On funds collected	$ 12,271.57		
On charges uncollected	134,896.04	147,167.61	
Proceeds of lot sales due land-holding certificate holders		1,099,111.96	
Accrued Liabilities			
Salesmen's Commissions	$48,034.72		
Other expenses	4,645.74	52,680.46	
Total liabilities			$1,311,420.34
Deficit			(258,509.75)
Total liabilities and deficit			$1,052,910.59

Note A: In 1892, the corporation purchased land for use as a cemetery site under the terms of a special francise granted by the City of Glendale, California, which provided that one-half of the proceeds of sales of the use of lots and plots be paid as the purchase price. Because this amount is indeterminate the value of the land and the related liability have not been included in the balance sheet.

EXHIBIT 2

Redwood Memorial Park Contrasted with a Typical Graveyard

(a) Redwood Memorial Park

BELOVED BROTHER
SAMUEL
DIED JAN 24 1934
AGE 44 YRS
WORLD WAR VETERAN
EBMAN

(b) A Typical Graveyard

EXHIBIT 3 Sales Analysis

Total sales of individual spaces for the fiscal year ending June 30, 1960	$435,063.50
Total sales of estates for the fiscal year ending June 30, 1960	62,334.00
Total land sales for the fiscal year ending June 30, 1960	$497,397.50

Information on Sales Cancellations During Fiscal Year Ending June 30, 1960

Date of Original Sale	Section Number	Number of Spaces	Original Sales Price	Sales Commission	Down Payment	Installment Payments to Date of Cancellation
April 1, 1959	8	2	$ 500	$ 175	$100	$ 0
May 21, 1959	1	6	1,200	390	200	160
August 3, 1959*	7	1 estate	9,000	2,350		Paid in full
January 13, 1960	4	4	600	210	150	100
May 5, 1960	6	3	750	280	80	30
June 17, 1960	9	10	2,100	600	200	200

*This sale represented a special case in which the cemetery repurchased an estate because of exceptional circumstances. A price of $6,000 was agreed upon in this case. However, the 25% trust fund deduction of $2,250 had already been made and credited to the Sun Valley Trust Company.

EXHIBIT 4

Accounts Receivable from Lot Purchasers
As of June 30, 1960

Past due	$147,818.72
Due within one year	231,449.00
Due within two years	157,608.00
Due within three years	75,905.65
Due after three years	27,028.91
Total	$639,810.28

Note: All accounts receivable are secured by signature notes. There were no credit balances in the accounts receivable ledger.

EXHIBIT 5 Detail of Development Cost Account to June 30, 1959

Section Number	1 Total Spaces or Estates in Section*	2 Less Unsalable Spaces in Section	3 Net Spaces Available 1-2	4 Estimated % of Completion as of 6/30/59	5 Effective Number of Completed Spaces (3 x 4)
1	14,479	204	14,275	100	14,275
2	0	0	0	-	0
3	10,294	200	10,094	95	9,589
4	6,598	144	6,454	55	3,550
5	13,612	268	13,344	80	10,675
6	2,278	19	2,259	90	2,033
7	80	0	80	65	52
8	682	7	675	100	675
9	9,606	92	9,514	98	9,324
10	19,240	180	19,060	25	4,765
Totals	76,869	1,114	75,755	-	54,938

*There are approximately 1,000 spaces to an acre of land.
Prepared by Mr. Martin, accountant for Redwood Memorial Park.

cont'd

EXHIBIT 5, cont'd

6 Total Costs Charged to 6/30/59	7 Cost Per Space (6 ÷ 5)	8 Total Spaces Sold to 6/30/59	9 Total Cost of Spaces Sold to Date (7 x 8)	10 Total Cost Allocated to Spaces Sold Up to 6/30/58	11 Cost of Spaces Sold Current Year 9-10
$127,647.05	$ 8.942	9,004	$ 80,513.77	$ 76,178.13	$ 4,335.64
1,960.00	-	0	-	0	-
65,684.65	6.850	6,856	46,963.60	47,826.19	(862.59)
64,666.80	18.216	2,138	38,945.81	42,712.00	(3,766.19)
98,423.50	9.220	2,026	18,679.72	14,542.16	4,137.56
11,760.91	5.785	1,941	11,228.68	9,088.89	2,139.79
4,446.00	85.500	$\boxed{34}$	2,907.00	3,130.29	(223.29)
6,468.10	9.582	647	6,199.55	4,219.67	1,979.88
100,568.66	10.786	5,205	56,178.13	51,901.20	4,276.93
102,256.90	21.460	2,342	50,259.32	13,578.00	36,681.32
$583,882.57	-	30,193	$311,875.58	$263,176.53	$48,699.05
311,875.58					
$272,006.99	To 6-30-59 Balance Sheet				

EXHIBIT 6

Detail of Section Development During Fiscal Year Ended June 30, 1960

Section Number	1 Total Spaces or $\boxed{\text{Estates}}$ in Section	2 Less Unsalable Spaces in Section	3 Net Spaces Available 1-2	4 Estimated % of Completion as of 6/30/60	5 Current Costs Charged to Section During F.Y.E. 6/30/60	6 Total Spaces Sold* in the F.Y.E. 6/30/60
1	14,479	204	14,275	100	$ 206.63	310
2	0	0	0	-	1,441.72	0
3	10,294	200	10,094	90	1,216.87	229
4	6,585	144	6,441	65	3,487.10	878
5	13,612	268	13,344	90	2,675.00	121
6	2,278	19	2,259	95	836.20	62
7	$\boxed{80}$	0	$\boxed{80}$	78	2,680.00	$\boxed{7}$
8	682	7	675	100	0	0
9	9,606	92	9,514	95	2,157.65	10
10	19,240	286	18,954	40	13,816.20	844
11	8,300	62	8,238	15	2,870.13	22
Totals	85,156	1,282	83,874	-	$31,387.50	2,483

*These figures represented gross lot sales and had not been adjusted for sales cancellations which took place during the year.

EXHIBIT 7

Expense Account Summary for the Fiscal Year Ending June 30, 1960

Part 1—General & Office*

Advertising—death notices, billboard, brochures	$ 7,088.30
Directors' fees	1,200.00
Employees' insurance & pension fund contribution	7,419.76
General administrative expenses	3,145.88
General expense of servicing salesmen—home office expense	4,223.29
Insurance on lives of lot owners	2,290.19
Insurance—all other	621.15
Office supplies and expense	7,767.21
Payroll taxes	4,562.36
Professional services	5,050.00
Public relations and sales promotion	9,736.68
Rent and light	10,474.79
Salaries—executive	13,031.18
Salaries—office	46,692.68
Telephone & telegraph	5,351.65
Total	$128,655.10

Part 2—Cemetery Maintenance & Development Costs*
(Exclusive of the Direct Costs Shown in Exhibit 6)

Cemetery supplies and expense—included the cost of crypts, grass-seed, fertilizer, and cement used during the year	$11,515.00
Equipment operation and maintenance—repairs, gasoline, etc.	4,849.13
Heat, light, and power	1,144.40
Insurance—this included the premium on a policy that covered the park superintendent	3,026.90
Payroll taxes	2,013.74
Salaries and wages—superintendent	15,420.00
Salaries and wages—general maintenance	61,109.64
Telephone and telegraph	838.83
Total	$99,917.64

*All expense items had been calculated under the accrual concept and thus had been adjusted for unused supplies and prepaid expenses of $3,773.59, accrued payroll taxes not paid as of June 30, 1960 of $3,150.08, and accrued miscellaneous expenses of $13,657.07 not paid as of June 30, 1960.
The Cash Surrender value of the life insurance contract increased by $1,400 during the year.

EXHIBIT 7, cont'd

Part 3—Schedule of Fixed Assets

	Original Cost	Accumulated Depreciation to 6/30/59	Depreciation Scheduled for F.Y. 1960	Estimated Life
Automotive Equipment—Trucks				
As of June 30, 1959. . .	$ 6,471.41	$ 5,400.41	$ 486.00	Various
Purchased 1960 Chevrolet pick-up truck for general cemetery use December 30, 1959. . .	2,850.00		285.000	5 years
Buildings				
Temporary sales offices	4,967.00	2,751.26	672.00	Various
Garage and addition . .	8,810.60	2,059.04	742.08	Various
Cemetery Equipment				
As of June 30, 1959. . .	16,894.47	8,227.88	1,629.42	Various
Purchased Ford tractor and gang cutter Oct. 15, 1959	1,095.35		82.15	10 years
Cemetery Improvements				
As of June 30, 1959. . .	90,718.29	11,187.57	1,814.37	50 years
Office Equipment				
As of June 30, 1959. . .	18,026.56	13,700.67	1,300.08	10 years
Purchased new desks, adding machines, and typewriters February 1, 1960 . .	1,295.70		54.00	10 years
Total	$151,129.38	$43,326.83	$7,065.10	

Note: No depreciation had been included in the above expense summaries.

The cemetery equipment consisted of tractors, drag rakes, cutters, grave diggers, and sprayers used both to maintain and to develop the cemetery land.

The cemetery improvements were composed of the entrance archway, lakes, and the Chapel in the Redwoods.

The straight line method of depreciation was used in depreciating all fixed assets.

CASE 50

Harvard Law Review

On May 20, 1958, the treasurer of the *Harvard Law Review,* Mr. Nat Lewin, was faced with the problem of making a major policy recommendation. A year earlier, the trustees of the *Harvard Law Review* Association authorized the reprinting of a substantial number of issues in Volumes 41-67 (1928-1954). The Board declined, at that time, to take action on the question of reprinting Volumes 1-40 (1887-1927) in order to allow the treasurer time for further investigation. In the morning's mail, Mr. Lewin received confirmation that the Board wished to receive his recommendation at its next quarterly meeting on July 15.

The *Harvard Law Review* Association was founded in 1887 as an organization of students at the Harvard University Law School interested primarily in the publication of a journal of writings of interest to the legal profession. The *Law Review* grew steadily over the years and became recognized as a leading publication in the field of law. Although the faculty of the Law School showed considerable interest in the *Review,* and lent a great deal of consultive support, the organization developed as one managed primarily by students.

The offices of the *Harvard Law Review* were located in Gannett House, on the campus of the Harvard Law School. That building, as well as extensive storage space in nearby buildings, was provided without charge by the University and served as the base of operations for the officers and staff of the *Review.* Although the offices and storage areas were not sumptuously furnished, they were adequate for the needs of the *Review* in 1958[1]; in May, 1959, additional office space for the use of student editors was to be constructed (by the University) in the unused attic of Gannett House.

The president and the treasurer of the *Harvard Law Review* were the two principal administrative officers, and they supervised all aspects of the journal's operation. In addition to handling business matters, the treasurer also participated in the editorial supervision of the journal. He spent many hours reading copy, reviewing printer's proofs, and checking for accuracy, consistency, and editorial acceptability. There were sharply divided opinions about the proper role of the treasurer; some past treasurers felt that he should be almost exclusively a business manager. Others adopted virtually an opposite view and considered the business side of the venture as a necessary, but unwelcome, intrusion into the time that was available for matters of law (see Exhibit 1).

In addition to the students who served as president and treasurer, there were some fifty student editors and four paid employees. The student editors were chosen on the basis of academic achievement, usually at the end of their first year at the Law School, and the president and treasurer were chosen at the end of their second year by vote of the student editors. Thus the formal administration of the *Review* changed annually, and the paid staff of four served as the connecting link between successive administrations.

The paid employees were: a business office manager; a business office secretary; an editorial secretary who worked mostly for the president; and a student part-time worker who handled mail orders and cared for the stockrooms.

The *Harvard Law Review* was published monthly, eight issues a year, from November through June. Its contents were fairly uniform from month to month except for the inclusion of a special developments report in two or three issues a year. Normally, an issue comprised several major articles contributed by authors outside of the student staff, reviews of cases and books that were expected to be of interest to the legal profession, and several notes on matters of general interest, prepared by student editors. There was some advertising copy in each issue, but little emphasis had been placed on the solicitation of advertising contracts. If the treasurer had an opportunity to sell space he did, but most of the advertising in the *Review* had not been solicited directly.

THE "LAW REVIEW" PRODUCT LINE

Over the years, the Board of Trustees developed a general policy that determined what the *Review* would sell and in what forms the publication would be offered. Basically, the offerings of the *Review* were referred to either as issues, volumes, or sets. The term "issue" was used to designate a single monthly copy of the *Review;* all eight issues from a publication year comprised a "volume," and a "set" referred to any one of several combinations of volumes that were regularly offered for sale. The major "product" was the current issue of the *Harvard Law Review,* with a mailing list of approximately 8,100 names;[2] hence, much of the day-to-day effort was consumed in handling current subscription business.

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[1] The 1957 reprinting program, however, consumed a good bit of space that would otherwise have been free for use in later years.

Current Subscription Business. Mailing of current issues to subscribers was done by the printer, but all bookkeeping and record maintenance was taken care of by the office staff. A majority of the subscriptions ran on a normal volume-year (November through June) and were usually billed after the first issue was mailed in November. A number of the subscriptions, however, were originally placed in months within the volume-year and required separate processing depending on the anniversary month. Mr. Lewin was not sure whether this created a special problem or whether it was a convenient way of staggering the billing workload. Because subscriptions were considered to renew automatically in the absence of express instructions to the contrary, mailing lists at the printer's office required no special handling (see Exhibit 2 for circulation statistics).

Nonsubscription Business. Frequently, persons who did not subscribe to the *Review* wished to obtain single copies, or regular subscribers wished additional copies. Since the *Review* stocked reprints of relatively few individual articles, most requests for single items were filled by mailing single issues from the current or past volumes. This mailing was handled from Gannett House and was the responsibility of the part-time employee. Following is a list of offerings other than regular one-year subscriptions (see Exhibit 2 for price information).

1. *Single Issues from Current Volume:* Volumes were numbered annually (1957-1958 year was Volume 71), and extra copies from the current volume were mailed from the offices in Gannett House as orders were received.

2. *Single Issues from Back Volumes:* Individual issues were mailed, on request, from Gannett House. The basic inventory of back issues was maintained in the stockrooms in the basement of Gannett House and in neighboring buildings; a working inventory of back issues was kept in the offices.

3. *Complete Back Volumes:* The *Review* offered full volumes (each comprising the eight separate issues from a publication year) in either

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[2] Approximately 15 per cent of the subscriptions were sold through agents who were given a 15 per cent discount off the regular subscription price.

bound or unbound form. Purchase of an unbound volume was the equivalent of buying eight separate back issues.

4. *Bound Sets:* Frequently, requests were received for a full set—or some portion of a full set—of back volumes of the *Review.* In 1958, a full set was made up of Volumes 1 through 70, together with a three-volume index (also available separately), and a short set was made up of Volumes 51 through 70 with a two-volume index.

5. *Other Offerings:* From time to time, articles appearing in the *Review* attracted sufficient attention to justify separate printing. The *Review* carried a stock of its more popular individual articles and also compiled several collections of articles which were stocked and sold on request. Sales of these items brought in more than $10,000 during the year ended June 30, 1957.

Subscribers to the *Harvard Law Review* sometimes wished to have their personal copies of the journal bound and could do so through the *Review.* Also, indexes to past volumes were cumulated in standard form and sold as orders were received.

PRINTING THE REVIEW

The printing and publishing work for the *Harvard Law Review* was done commercially—printing and storage of printing plates at the Harvard University Printing Office, and binding and mailing by a local firm.

Approximately 1,100 copies of each issue were printed over and above the requirements of the regular subscriber lists. Of these, 400 were stored in inventory unbound; the remainder were bound and sold as individual issues. A portion of the unbound issues were bound into full volumes at the end of the year, and between 75 and 100 of these were usually sold within the next year. Thereafter, about 25 volumes a year were sold as part of bound set sales. If this pattern continued, Lewin felt that the 400 issue over-run for binding into volumes would be sufficient for about fifteen years. Lewin believed that this was inadequate and that the over-run should be increased to allow binding of at least 600 volumes each year.

The cost of printing and publication was a matter of continuing concern to the treasurer and his staff. Exhibit 3 summarizes the printing requirements for the three latest Volumes (69-71), and Exhibit 4 contains an analysis of the unit publication expense associated therewith. The following comments on the individual elements of cost are significant and relate to the analysis of total publications expenses in Exhibit 5.

Composition: Composition cost varied between $5.85 and $9.10 per page, depending upon format and size of type. The average cost per page was about $7.00; this was the one-time cost of preparing an issue for the presses.

Presswork: Presswork charges varied with the length of the issue and with the number of copies that were printed. An increase in run from 8,800 to 9,200 copies, for instance, cost $20 for a 192-page issue. Mr. Lewin felt that overprinting was the only practicable way of maintaining an inventory of back issues. Presswork cost about $25 for an additional 500 copies printed in the original run. The same 500 copies cost about $350 for presswork if it later became necessary to reprint the issue.

Alteration Charges: Lewin referred to this as "the price of changing our minds after copy is sent to press." He pointed out that prestige requirements were so great that, in striving for editorial perfection, the Association had to be willing to underwrite the costs of alterations and changes.

Paper: Paper was charged to the *Review* by the Harvard University Printing Office, and the amount of the charge was governed by the number of pages per copy and the number of copies printed.

Binding and Mailing: The reduction in cost for Volume 71 was due to a change in the firm that handled the binding and mailing. However, transportation costs of $75 per issue, made necessary by the change, and postage of $65 per issue were not included in the figures given. Mr. Lewin observed that, "If overprinted copies are folded, gathered, and bound with the original run, the cost is $.01 each, but printing and binding of advertising is wasted.[3] If done by hand

REPRINTING THE EARLY VOLUMES

At the time he received notice of the wishes of the Board, Mr. Lewin was aware that a decision on the question of reprinting Volumes 1 through 40 would have major policy implications. The problem of deciding on the advisability of a reprinting program arose directly out of longstanding policy to make available both sets and volumes commencing with Volume 1; further, the problem had become more acute as the stock of several of the early volumes was depleted, making it impossible to provide full service. Then, arising out of the pressures of the existing policy, and dependent upon the interrelated factors of demand, inventory levels, costs, and selling price, the task of answering the reprinting question became Lewin's major concern.

Demand for Back Volumes. Although the *Review* sold back copies in three forms (bound sets, single volumes, and single issues), Lewin concluded that only sales of bound sets were of significance insofar as issues prior to Volume 40 were concerned. His conclusion was based on information in his records which indicated that in the period from May 1956 through May 1958, 67 single back-issues and 17 single back-volumes were sold. Thus, the crucial focus was on the number of bound volumes in sets that would be needed. Sales of bound sets that included Volumes 1-40 were as follows for the period from 1947 through 1957:

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[3] In subsequent reprinting, no advertising copy would be run.

later, however, the cost is $.31 each."

1947-1948: 22
1948-1949: 34
1949-1950: 34
1950-1951: 24
1951-1952: 34
1952-1953: 25
1953-1954: 11
1954-1955: 20
1955-1956: 15
1956-1957: 3[4]

On the basis of past demand, Lewin predicted that the *Review* would need from 15 to 25 copies of each volume each year if the policy of offering full sets were continued.

Inventory. According to past policy, about 400 copies of each issue were placed in inventory unbound. The inventory data adjusted to April 30 (Exhibit 3) indicated that for Volumes 69-71 a sizable stock was on hand. Further, the reprinting program that had been approved in 1957 brought the inventory of Volumes 41-67 up to 500 copies with 100 copies bound. Mr. Lewin was sure that this represented a good two years' supply of bound volumes. After that time, some binding would be required, but not much. Since the binding cost per volume would be the same regardless of number of volumes bound, he felt that he was under no immediate pressure to enter into a long-range binding program.

When he reviewed the inventory statistics on Volumes 1-40, however, the treasurer faced the specific problem on which he must report to the Board. He analyzed the adequacy of the inventory of early volumes in consideration of his estimate of sales of from 15 to 25 sets a year. On that basis, he divided the inventory into categories to see which volumes were in less than one year's supply, which were in one to two years' supply, and which were in more than two years' supply. The data that Lewin developed, showing both quantity and category, are summarized in Exhibit 6.

Cost of Reprinting. Reprinting in quantities of 500 units, printing and binding a full set of the *Review* at 1958 costs would be approximately:

Volumes 1-10	$ 45.00	(average $4.50 per unit)
Volumes 11-40	167.50	(average $5.25 per unit)
Volumes 41-70	180.00	(average $6.00 per unit)
One full set	$392.50	(average $5.60 per unit)

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[4] The abnormal decline in sales of sets in the 1956-1957 year was a result of inventory shortages which made it impossible to ship complete sets (see Exhibit 6).

The difference in cost for different volumes was largely a function of the size of the volume. Over time, the *Review* had increased in size and, as a result, the costs that vary with size caused variations in per-volume costs of reprinting. Paper cost, for instance, was directly related to number of pages per volume and was greater for later volumes than for earlier ones. Some costs, on the other hand, were constant per volume regardless of size. Binding of the individual volumes did not vary with the size of the volume and had been agreed upon at the rate of $2.25 per unit.

Using the data that he developed on current inventory levels, Mr. Lewin assigned priority to each volume if reprinting were to be undertaken. Recalling that there had been talk of offering a new short set commencing with Volume 26, Lewin compiled the costs for full sets and for short sets. His projections anticipated a three-year cost of $65,250 to keep Volumes 1-40 in full supply, and $25,875 to maintain a full stock of Volumes 26-40 (Exhibit 7). His analysis was based on the past policy of reprinting 500 copies of each issue and of binding 100 copies at the time of printing. He reported that a reduction from 500 to 200 reprinted copies would save only 10 per cent of the cost and a reduction down to 100 copies would save only another 7½ per cent of the cost, exclusive of binding cost.

Selling Prices. In order to compare anticipated revenues with the cost of reprinted sets, Lewin detailed the history of the selling price of the complete bound set as follows:

		Selling Price	
		Per Set	*Per Volume*
1940	Volumes 1-52	$110	$2.10
1945	Volumes 1-55	125	2.30
1948	Volumes 1-60	225	3.75
1952	Volumes 1-65	300	4.60
1953	Volumes 1-65	325	5.00
1957	Volumes 1-65	400	6.15
1958	Volumes 1-70 *	465	6.65

* Effective November, 1958.

To Mr. Lewin, it was clear that the low original cost of printing the early volumes was a major factor that made it possible to carry the bound volume business at 1958 selling prices. To be sure, the price of $465 (Volumes 1 through 70) planned for November would increase the margin somewhat. Even so, Lewin feared that a decision to enter into a major reprinting program would cause the Board to question the adequacy of the full-set selling price.

FINANCIAL REPORTS

The Balance Sheets and Profit and Loss Statements (Exhibits 8 and 9), and the Analysis of Publication Costs per Copy (Exhibit 4) were the primary information statements that were available to the officers and the Board. Mr. Lewin was uncertain of the value of these statements as they had been prepared in the past. He wanted to study this question before making any recommendations that would be based on the reported data.

Looking at the Profit and Loss Statement for Volume 70, Mr. Lewin felt that it might be more realistic to divide the presentation into an analysis of (1) operating profit, (2) ordinary investment income, and (3) capital gains. Such an approach would mean that the operating profit for Volume 70 would be the "Net Operating Profit" as shown, plus "Discount Earned" and "Miscellaneous Income," and less the "Loss on Contributors' Reprints." The ordinary investment income would be the dividend and interest income amounts, less the expenses of the graduate treasurer. Then, Volume 70 income would be classified as follows:

Operating profit	$2,204.32
Ordinary investment income	4,314.91
Capital gain	1,287.03
Net profit	$7,806.26

Cost Allocation. More important, Mr. Lewin believed, was the question of proper allocation of costs between those attributable to current publishing and those attributable to the cost of sales of other volumes and materials. It was not unlikely that the Association would always expect to subsidize the business in back volumes. Mr. Lewin expressed his concern by saying, "Rational decision-making demands that we at least know the extent of the subsidy—and the Profit and Loss Statement is in many ways misleading on this question."

In the past, at least two board members had questioned the soundness of continuing the overprinting program at all. They reasoned that the prestige value of the back-volume offering was hardly worthwhile in consideration of the costs involved in printing to meet long-term requirements and carrying ever-increasing inventories. Each year they attacked the back-volume policy; as a counter-plan they proposed (at the 1957 meeting) that an amount equivalent to the annual cost of back-volume printing be devoted instead to scholarships, professional educational seminars, or some other comparable activity. Although the soundness of their reasoning was not a matter for Lewin to evaluate at the moment, he was convinced that the Board would be ill-advised to base its decision on the misleading classification of income and expenses in the operating statements.

For one thing, he pointed out, the *Review* was not separately billed by the Printing Office for the cost of electroplating; this was included in the total composition cost. For many years prior to 1958, the practice was to capitalize 5 per cent of the composition charge and to depreciate it over 16⅔ years. The 1958 plating cost, however, was probably closer to 20 per cent of the composition charge. The depreciation charge on capitalized electroplating cost was combined with depreciation on other assets and deducted from income as part of the general and administrative expenses in the Profit and Loss Statement.

Were it not necessary to preserve the plates for future reprinting, it would not have been necessary to incur the charge for electroplating. Lewin believed that the depreciation charge on the plates, calculated at a 6 per cent annual rate, should not be charged at all against the current issue. As for the amount of the electroplating cost to be charged off annually, Lewin said, "The supposed useful life is, of course, entirely arbitrary. Although I have no particular objection to the 16⅔ years, I would like to see the cost capitalized realistically. And if this should be done, I would like to see the depreciable life shortened so that we will not have to wait 17 years before the total annual depreciation figure is realistic."

Another thing that bothered the treasurer was that one of the costs of supplying back issues of a periodical was the necessity of an ever-increasing inventory. Roughly $5,000 of Volume 70 was added to inventory simply because it became necessary to stock eight more issues of the *Review*. "Perhaps," he mused, "this is properly a cost of the increased sales we might expect because we now stock 560 instead of 552 separate issues. But I suspect that our use of an inventory system of accounting leads us, under the circumstances, to be somewhat over-optimistic about our financial position. Perhaps it would be helpful to have, as a supplement to the Profit and Loss Statement, a short-form statement of our cash expenditures and cash income."

Mr. Lewin also noted that the back inventory was expensive to maintain. Costs included insurance on the entire inventory, shelving, employee time in processing and filling orders, casual labor for transfers to the bindery or to the working inventory in the main offices, labor for physical counts, and labor and boxes for packing and storing new accretions from current overprint or reprinting. He felt that these costs should be reflected as part of the cost of handling back-issue sales. For instance, certainly the cost of insuring and storing the plates should be charged against the sales of other volumes and materials rather than to general expense. And, in fairness, about half of the annual salary expense was directly attributable to the back-order business since the part-time employee and the office clerk had been hired principally because of the demands of the back-volume business.

Unit Publication Costs. Whereas the problems of income statement presentation might be solved by a modification in the form of the statements, a problem of greater concern was the fairness of the calculation of the publication cost per copy (Exhibit 4). The publication cost per copy was used in determining (1) the value of transfers to inventory from current year publications, (2) the cost of current publications, by subtracting inventory transfers, and (3) the cost of future sales of back-volumes. Obviously, the influence of this calculation would be widespread.

There were three separate quantity figures that were used in determining the value per copy of publication work. The first stage of publication included all work through the printing, folding, and gathering together the pages of an issue, but preceding the actual binding process. At this point all copies (those to be retained unbound, those to be bound and held for single copy sales, and those to be mailed to subscribers) had passed through a common process (70,400 units for Volume 70, per Exhibit 3). In the next stage of publication, the units to be held in stock unbound (pending binding into full volumes at the end of the year) would be eliminated and only the balance would be bound (67,200 for Volume 70, per Exhibit 3). And, finally, the bound issues that were to be stocked for sale as individual copies did not go through the mailing process and, thus, bore no share of the cost of addressing and mailing. The number of subscription copies for the year was used to determine per unit cost of addressing and mailing (60,200 for Volume 70, per Exhibit 3).

The cost per unit figure, at any given stage, was an average cost per unit. Considering this, Mr. Lewin indicated that his earlier reference to the subsidization of the back-volume business by current operations was really only part of the picture. He wondered if the shoe might not really be on the other foot. That is, perhaps the method of calculating unit costs, and then cost of sales and value of inventory, was really forcing the back-volume business to cover unfavorable performance in the current operations.

His reasoning was based upon consideration of incremental rather than average costs. A common characteristic of publishing costs is that the charge for added copies is only a fraction of the cost of original work. In its policy, the Board of the *Review* had recognized this by providing for a sizable initial overprint. As a matter of fact, Mr. Lewin felt that more advantage ought to be taken of the savings on first-run overprinting. At the same time, he felt that the size of the overprint should not be permitted to determine the cost of current operations. This, essentially, was exactly what was taking place.

If the *Review* were to engage in no back-volume business, and were to print only current material, a greater part of the cost of publishing would have to be borne by the current printings. As soon as an overprint was added, the method of cost calculation that was used by the *Review* averaged all costs over all copies. The net effect of this was to remove from current operations a substantial part of costs that would have to be borne regardless, and to charge them to the value of the copies overprinted. The increased cost of inventory units served, first, to reduce the profits made on back-volume business, and second, to make the profits of the current operation appear higher than they would if current business had to absorb full costs without benefit of overprint.

Mr. Lewin was not sure how much difference a change in the method of calculating per unit costs would make; neither was he sure at what point the benefit of over-run, as such, commenced. Clearly, the *Review* had to print to meet subscription needs. It was also reasonable to expect that at least a part of the single-issue business would fall into the category of current operations. There did not seem to be much argument, however, to support a contention that the 400 unbound units, stocked specifically for back-volume business, could realistically be considered part of the current operations.

As he thought about devising a plan of action to present to the Board of Trustees, Mr. Lewin realized that his problem involved much more than determining whether he thought that an extensive program of reprinting should be planned. He felt that an intelligent recommendation should deal with the questions of income and cost determination as well. As he viewed the questions that his investigation had turned up, he seriously considered asking the Board for another extension for further investigation, and at the same time for authorization to hire a second-year Business School student as business manager.

EXHIBIT 1 Excerpts from Various Treasurers' Reports

"The treasurer in the past few years has been responsible for proofreading the entire issue at one proof stage or another, for answering Blue Book questions, for assigning work to the Review's 50-odd editors, for measuring galleys, and for doing a good deal of the collating in addition to duties with respect to the business aspects of the Review's operations." (May, 1956)

. . . .

". . . I do not think, however, that the conclusion drawn by my predecessor, that these functions are therefore undesirable, necessarily follows. In the first place, the treasurer is a law student and has presumably chosen the law as his career. The Harvard Law Review monopolizes the time of its editors, particularly of its officers, and allows little extra-Review study. I think it would be unfair and improper to isolate such a man from the law in favor of business matters." (June, 1957)

. . . .

". . . the job of treasurer, as organized during Volume 70, was too big to be done well by ordinary mortals. The number of surprises which the auditor's report* revealed to me confirms my belief that a greater portion of the treasurer's time should be spent on business matters." (June, 1957)

. . . .

"Several other solutions are possible and should be considered. One would be the creation of an office of assistant treasurer; this would tend, however, to create an undesirable hierarchy on the board of officers and would separate the functions which seem to be integral. Another would be performance of the routine business tasks by a paid employee, who would be subject to the supervision of the treasurer and the policy decisions of the president and treasurer. Perhaps such an employee could be hired on a part-time basis from among the students at the Business School. On the other hand, the treasurer might be required to remain at Gannett House during the summer, as the president is at the present time. The second of these possibilities seems the best to me. However, it is hoped that future treasurers may find further and more satisfactory compromises." (May, 1958)

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*The Constitution of the Association required that the books and records of the Harvard Law Review Association be audited annually by a certified public accountant and that the reports of the public auditor should be presented to the Board of the Association.

Sources: Treasurer's Interim Report, May 1956; Treasurer's Final Report as of June 30, 1957; and Treasurer's Interim Report, May 1958.

EXHIBIT 2 Circulation and Sales Volume Data

	1955-1956 (Volume 69)		1956-1957 (Volume 70)		1957-1958 (Volume 71)	
	Quantity	Rate	Quantity	Rate	Quantity	Rate
Subscriptions:						
Regular	5,429	$ 7.50	5,292	$ 7.50	5,747	$ 8.50
Post graduate:*	296	5.00	311		312	
1st Year P.G.		5.00		5.00		6.00
2nd Year P.G.		6.00		6.00		6.00
Law School students	628	4.00	601	4.00	571	4.00
Agents	987	6.37	1,095	6.37	1,272	7.22
Complimentary	237		228		251	
Total	7,577		7,527		8,153	
Single Issues						
Current volume	1,752	1.25	1,887	1.25	2,081	1.50
Back volumes		1.50		1.50		2.00
Single Bound Volume	208	10.00	299	10.00	239	11.00
Bound Sets, w/index:†						
Volumes 1-65	15	$400.00	3	$400.00	-	$400.00
Volumes 1-70	-	-	-	-	-	465.00‡
Volumes 51-65	6	$140.00	10	$140.00	-	-
Volumes 51-70	-	-	-	-	-	$180.00
Indexes (bound):						
Volumes 1-50	8	$ 7.50	8	$ 7.50	6	$ 7.50
Volumes 51-65	82	7.50	52	7.50	21	-
Volumes 1-65	-	14.00	-	14.00	-	-
Volumes 66-70	-	-	-	-	746	$ 5.50
Volumes 1-70 (3 vol.)	-	-	-	-	-	19.00
Volumes 51-70 (2 vol.)	-	-	-	-	-	12.00

*Reduced rate offered for first two years following graduation from Law School.

†Credit allowed for each volume not taken:
Volumes 1-40, $4.00 credit
Volumes 41-50, $5.00 credit
Volumes 51-70, $6.00 credit

‡Available commencing with Volume 72 (November 1958).

Source: Company records.

EXHIBIT 3

Printing of Issues in Volumes 69-71

				Original Inventory		4/30/58 Inventory†		
	Issue	Copies Printed	Circulation*	Bound	Unbound	Volumes	Bound Issues	Unbound
Volume 69	#1	8800	7554	846	400	24	420	250
(1955-1956)	2	8800	7558	842	400		445	180
	3	8800	7562	838	400		490	255
	4	8800	7565	835	400		770	276
	5	8800	7568	832	400		55	240
	6	8800	7571	829	400		561	190
	7	8800	7574	826	400		490	245
	8	8800	7577	823	400		538	320
	Total	70,400	60,529	6,671	3,200	24	3,769	1,956
Volume 70	#1	8800	7523	877	400	57	600	240
(1956-1957)	2	8800	7523	877	400		634	250
	3	8800	7524	876	400		854	190
	4	8800	7524	876	400		804	350
	5	8800	7525	875	400		839	9
	6	8800	7526	874	400		830	240
	7	8800	7527	873	400		720	250
	8	8800	7527	873	400		858	242
	Total	70,400	60,199	7,001	3,200	57	6,139	1,771
Volume 71	#1	9000	7572	1028	400		-	-
	2	9000	7693	907	400		-	-
	3	9000	7814	786	400		-	-
	4	9200	7901	899	400		-	-
	5	9500	7987	1113	400		-	-
	6	9200	8024	776	400		-	-
	7	9200	8061	739	400		-	-
	8	9200	8099	701	400		-	-
	Total	73,300	63,151	6,949	3,200			

*The figures in this column are based primarily on counts of numbers 1 and 8 of each volume. The figures for other issues are derived by interpolation.

†The figures given for issues are based on a physical inventory completed October 31, 1957; the figures given for volumes are based on a physical inventory completed March 27, 1958. No physical inventory had been taken of the overprint of Volume 71.

Source: Treasurer's Interim Report, Volume 71, May 1958.

EXHIBIT 4 Comparative Publication Costs—Volumes 69 and 70

	Costs per Copy	
	Volume 70	Volume 69
Composition cost—Reading matter	$0.1976	$0.1607
Printing charges	0.0961	0.0966
Text paper*	0.1387	0.1082
Editorial expense†	0.0339	0.0275
Cost of unbound copies	$0.4663	$0.3930
Composition cost—Advertising matter	0.0093	0.0077
Binding charges	0.1061	0.1036
Cover paper*	0.0088	0.0077
Cost of bound copies	$0.5905	$0.5120
Addressing and mailing	0.0593	0.0579
Cost of subscription copies	$0.6498	$0.5699

*For Volume 69, cover-paper cost $.0077 per issue bound; for Volume 70, cover-paper cost $.0088 per issue bound. The balance of the paper expense was for text paper.

†50% of total editorial expense (alteration charges and expenses of student editors) was used to calculate unit cost.

Source: Treasurer's Report, Volume 70 as based on original data now in Exhibits 3 and 8.

EXHIBIT 5 Total Publication Expenses—Volumes 69, 70, and 71

	Issue	Pages	Copies Printed	Composition	Presswork	Alterations	Paper Used	Binding	Mailing
Vol. 69	#8	176	8800	$ 1527.90	$ 934.27	$ 492.07	$ 1132.06	$ 969.33	$ 141.23
(1955-1956)	7	192	8800	1210.41	827.30	295.23	985.84	797.94	126.87
	6	192	8800	1242.51	827.20	331.63	985.84	923.93	128.86
	5	192	8800	1259.40	827.20	306.72	985.84	870.60	131.00
	4	192	8800	1247.30	827.20	300.96	985.84	895.45	130.64
	3	192	8800	1263.99	827.20	319.08	985.84	872.30	128.36
	2	192	8800	1250.26	827.20	362.85	985.84	868.31	126.93
	1	216	8800	1561.63	904.03	325.06	1085.83	1005.00	154.98
	Total		70,400	$10,563.40	$6,801.60	$2,733.60	$8,132.93	$7,202.86	$1,068.87
Vol. 70	#8	192	8800	1831.45	976.74	599.29	1506.37	1192.06	157.56
(1956-1957)	7	192	8800	1433.31	827.40	471.45	1274.54	923.40	143.07
	6	192	8800	1442.69	827.40	536.20	1274.54	887.77	145.21
	5	184	8800	1438.40	801.74	460.76	1227.83	873.74	142.25
	4	176	8800	1315.26	776.00	494.16	1183.33	880.41	138.40
	3	192	8800	1464.94	827.40	506.78	1274.54	835.35	163.28
	2	208	8800	1506.91	866.61	480.71	1340.28	906.48	142.32
	1	192	8800	1675.00	861.48	532.72	1274.54	871.80	152.11
	Total		70,400	$12,107.96	$6,764.77	$4,082.07	$10,355.97	$7,371.01	$1,184.20
Vol. 71	#8	192	9200	NA	NA	NA	NA	NA	NA
(1957-1958)	7	208	9200	NA	NA	NA	NA	$ 866.19	$ 142.32
	6	192	9200	NA	NA	NA	NA	804.99	142.07
	5	232	9500	$ 1735.24	$ 1046.55	$ 546.64	$ 1614.95	977.63	141.98
	4	176	9200	1303.03	826.53	404.88	1254.56	800.59	142.14
	3	192	9000	1432.42	846.34	407.72	1296.32	794.87	142.19
	2	192	9000	1457.30	846.34	504.90	1301.67	778.13	139.48
	1	208	9000	1792.37	899.77	774.15	1377.77	950.15	135.90
	Total		73,300						

Source: Treasurer's Interim Report, Volume 71, May 1958.

Note: The data in this table were not used in calculating unit costs for Exhibit 4. Unit costs were calculated from data in the Income Statement (Exhibit 9) with which the above data does not completely agree. For instance, "alteration expense" (above) is a part of "editorial expense" in the income statement, but the latter item includes, as well, sundry costs incurred by or for the student editors.

For these reasons, the data in this table cannot be used to verify unit cost calculations. However, the data presented above do illustrate the general movement of prices in relation to number of printed units and number of pages per unit.

EXHIBIT 6

Analysis of Inventory, Volumes 1-40*
April 30, 1958

Supply Level (less than 1 year)		Supply Level (1 to 2 years)		Supply Level (more than 2 years)	
Volume	Quantity	Volume	Quantity	Volume	Quantity
3	1	1	35	26	70
4	8	2	28	27	75
6	3	5	21	28	69
7	12	8	18	29	68
9	0	11	15	30	66
10	0	12	34	32	55
18	7	13	36	33	42
19	0	14	29	34	72
24	0	15	16	37	59
31	11	16	24	39	75
38	0	17	33	40	74
		20	28		
		21	31		
		22	36		
		23	23		
		25	34		
		35	17		
		36	28		

*Based on assumption of demand of 15-25 sets annually.

Source: Company records.

EXHIBIT 7

Analysis of Reprinting Requirements—Volumes 1-40
April 30, 1958

	Fill Stock Volumes 1-40	Fill Stock Volumes 26-40
Summer 1958: (Volumes 3, 4, 6, 7, 9, 10, 18, 19, 24, 31, 38)		
Print, fold, and gather	$14,250	$ 3,000
Bind	2,475	450
Total	$16,725	$ 3,450
Summer 1959: (Volumes 1, 2, 5, 8, 11-17, 20-23, 25, 35, 36)		
Print, fold, and gather	$25,500	$ 3,000
Bind	4,050	450
Total	$29,550	$ 3,450
Summer 1960: (Volumes 26-30, 32-34, 37, 39-40)		
Print, fold, and gather	$16,500	$16,500
Bind	2,475	2,475
Total	$18,975	$18,975
Total 3-year cost	$65,250	$25,875

Estimated Costs Schedule

	Vol. 1-10	Vol. 11-40	Quantity Planned
Print, fold, and gather	$2.25	$3.00	500
Bind	2.25	2.25	100
Per single volume	$4.50	$5.25	

Source: Company records.

EXHIBIT 8

Comparative Balance Sheet
As of June 30, 1956 and 1957

Assets	6/30/56 (Volume 69)		6/30/57 (Volume 70)	
Cash on hand and in banks		$ 12,551.58		$ 33,374.69
Accounts receivable	$ 7,685.60		$ 10,276.04	
Less: Allowance for doubtful accounts	500.00	7,185.60	500.00	9,776.04
Inventory of published materials		75,229.47		75,506.73
Funds invested by graduate Treasurer		83,159.73		85,076.30
Fixed assets:				
Electroplates	$ 8,113.83		$ 8,524.05	
Less: Dep'n. allowance	3,475.17	4,638.66	3,645.85	4,878.20
Furniture and fixtures	$ 3,386.63		$ 3,652.80	
Less: Dep'n. allowance	1,085.79	2,300.84	1,308.16	2,344.64
Office library	$ 2,511.87		$ 2,563.65	
Less: Dep'n. allowance	1,244.00	1,267.87	1,266.07	1,297.58
Deferred charges		100.52		66.24
Total assets		$186,434.27		$212,320.42
Liabilities				
Accounts payable		$ 13,627.45		$ 32,018.86
Deferred income (unexpired subscriptions)		4,560.26		4,248.74
Net worth, July 1st	$151,163.25		$168,246.56	
Net gain for year	17,083.31		7,806.26	
Net worth, June 30		168,246.56		176,052.82
Total liabilities		$186,434.27		$212,320.42

Source: Treasurer's Report, Volume 70.

EXHIBIT 9 Comparative Income Statements

	Volume 69—8 Issues 7/1/55—6/30/56		Volume 70—8 Issues 7/1/56—6/30/57	
Publication earnings:				
Subscriptions		$49,279.98		$50,653.36
Advertising		4,583.75		4,021.25
		$53,863.73		$54,674.61
Current publication costs:				
Composition—Advertising	$ 518.65		$ 623.04	
Composition—Reading matter	11,311.36		13,912.65	
Printing	6,801.50		6,764.77	
Binding	6,962.86		7,131.01	
Addressing & mailing	3,502.29		3,570.31	
Paper	8,132.93		10,355.97	
Editorial expense	4,079.58		4,772.79	
	$41,309.17		$47,130.54	
Less: Additions to stock	4,890.02	$36,419.15	5,734.62	$41,395.92
Current publication earnings		$17,444.58		$13,278.69
Sales of other materials	$15,914.64		$18,463.65	
Less: inventory cost of sales*	8,098.76		11,113.25	
Earnings from other sales		7,815.88		7,350.40
Gross profit		$25,260.46		$20,629.09
General administrative expenses		16,990.01		18,209.60
Net operating profit		$ 8,270.45		$ 2,419.49
Other income:				
Discount & miscellaneous income	$ 128.01		$ 366.60	
Dividends and interest	4,277.14		4,389.91	
Gain on securities sold	5,075.53	9,480.68	1,287.03	6,043.54
		$17,751.13		$ 8,463.03
Other Charges:				
Loss on contributor's reprints†	$ 592.82		$ 581.77	
Graduate treasurer expenses	75.00	667.82	75.00	656.77
Net Profit		$17,083.31		$ 7,806.26

*The "Inventory cost" of back-volume sales is the accumulated per-unit cost for all volumes or back-issues sold.

†Authors of major articles in the Review are extended the courtesy (customary in the field) of receiving up to thirty free reprints of the published article.

Source: Treasurer's Report, Volume 70.

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